GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 23, 2005, 14:38:05 ; Search time 23.5 Seconds
(without alignments)
20.472 Million cell updates/sec

Title: SEQ1
Perfect score: 27
Sequence: 1 ffglm 5

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 206

Minimum DB seq length: 0
Maximum DB seq length: 5

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	18	66.7	5	2	PT0278	Ig heavy chain CRD
2	14	51.9	5	2	A44955	alkanal monooxygen
3	12	44.4	4	2	JQ1273	neuropeptide Antho
4	11	40.7	5	2	A61445	Met-enkephalin - b
5	10	37.0	4	2	PT0240	Ig heavy chain CRD
6	10	37.0	4	2	A53284	T-cell receptor be
7	10	37.0	5	2	G44817	27.5 kda structura
8	10	37.0	5	2	I44817	27.5K structural p
9	10	37.0	5	2	E44817	27.5K structural p
10	10	37.0	5	2	C44817	28.5K structural p
11	10	37.0	5	2	A44817	28K structural pro
12	9	33.3	3	3	S68328	blood cell protein
13	9	33.3	5	2	A32516	cholecystokinin-5
14	9	33.3	5	2	PQ0689	photosystem I 10.4
15	9	33.3	5	2	B61445	Leu-enkephalin - b
16	8	29.6	4	2	PT0633	T-cell receptor be
17	8	29.6	5	2	PT0572	T-cell receptor be
18	7	25.9	3	3	B23751	spinal cord peptid
19	7	25.9	4	2	E44823	synaptosomal-assoc
20	7	25.9	4	2	B53284	T-cell receptor be
21	7	25.9	5	2	T10954	hypothetical prote
22	7	25.9	5	2	JH0253	gut pentapeptide -
23	7	25.9	5	2	S69237	surface protein te
24	6	22.2	3	3	PT0636	T-cell receptor be
25	6	22.2	3	3	PT0571	T-cell receptor be
26	6	22.2	3	3	GKHU	growth-modulating
27	6	22.2	3	3	A60898	bursin - chicken
28	6	22.2	3	3	A23751	spinal cord peptid
29	6	22.2	4	1	ECXAA	antho-RFamide neur
30	6	22.2	4	2	D41654	hypothetical prote
31	6	22.2	4	2	S53508	starvation-induced
32	6	22.2	4	2	T30569	hypothetical prote
33	6	22.2	4	2	I38888	COI intron 16 prot
34	6	22.2	4	2	A25844	autho-RF amide neu
35	6	22.2	4	2	A34626	RPCH-related neuro
36	6	22.2	4	2	S39390	myosin-light-chain
37	6	22.2	4	2	S43959	Ig mu chain V regi
38	6	22.2	4	2	S47552	ubiquitin - rat
39	6	22.2	4	2	S09478	globulin IV alpha
40	6	22.2	4	2	PL0140	carbon-monoxide de
41	6	22.2	4	2	A35779	neuropeptide Antho
42	6	22.2	4	2	A60418	FMRFamide - polych
43	6	22.2	4	2	A32480	achatin-I - giant
44	6	22.2	4	2	PT0271	Ig heavy chain CRD
45	6	22.2	4	2	PT0711	T-cell receptor be

ALIGNMENTS

RESULT 1
PT0278
Ig heavy chain CRD3 region (clone 4-88) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0278
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0278
A;Molecule type: DNA
A;Residues: 1-5 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

Query Match 66.7%; Score 18; DB 2; Length 5;
Best Local Similarity 40.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 FFGLM 5
              :||::
Db          1 YFGVL 5
```

RESULT 2
A44955
alkanal monooxygenase (FMN-linked) (EC 1.14.14.3) alpha chain - Vibrio harveyi (fragment
C;Species: Vibrio harveyi
C;Date: 03-Jun-1993 #sequence_revision 03-Jun-1993 #text_change 26-May-2000
C;Accession: A44955
R;Paquatte, O.; Tu, S.C.
Photochem. Photobiol. 50, 817-825, 1989
A;Title: Chemical modification and characterization of the alpha cysteine 106 at the Vib
A;Reference number: A44955; MUID:90175700; PMID:2626493
A;Accession: A44955
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-5 <PAQ>
C;Keywords: FMN; luminescence; monooxygenase; oxidoreductase

Query Match 51.9%; Score 14; DB 2; Length 5;
Best Local Similarity 66.7%; Pred. No. 2.8e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          2 FGL 4
              ||:
Db          1 FGI 3
```

RESULT 3
JQ1273

```
neuropeptide Antho-KAamide - sea anemone (Anthopleura elegantissima)
C;Species: Anthopleura elegantissima
C;Date: 31-Mar-1992 #sequence_revision 04-Dec-1992 #text_change 09-Jul-2004
C;Accession: JQ1273
R;Nothacker, H.P.; Rinehart, K.L.; Grimmelikhuijzen, C.J.P.
Biochem. Biophys. Res. Commun. 179, 1205-1211, 1991
A;Title: Isolation of L-3-phenyllactyl-Phe-Lys-Ala-NH2 (Antho-KAamide), a novel neuropep
A;Reference number: JQ1273; MUID:92028852; PMID:1681803
A;Accession: JQ1273
A;Molecule type: protein
A;Residues: 1-4 <NOT>
A;Cross-references: UNIPROT:P58705
C;Comment: The carboxyl-terminal amide probably arises from cleavage of a following glyc
C;Keywords: amidated carboxyl end; neuropeptide; phenyllactylation
F;1/Modified site: L-3-phenyllactic acid (Phe) #status experimental
F;4/Modified site: amidated carboxyl end (Ala) #status experimental

  Query Match             44.4%;  Score 12;  DB 2;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FF 2
              ||
Db          1 FF 2


RESULT 4
A61445
Met-enkephalin - blue mussel
C;Species: Mytilus edulis (blue mussel)
C;Date: 07-Oct-1994 #sequence_revision 07-Oct-1994 #text_change 21-Jan-2000
C;Accession: A61445
R;Leung, M.K.; Stefano, G.B.
Proc. Natl. Acad. Sci. U.S.A. 81, 955-958, 1984
A;Title: Isolation and identification of enkephalins in pedal ganglia of Mytilus edulis
A;Reference number: A61445; MUID:84144823; PMID:6583690
A;Accession: A61445
A;Molecule type: protein
A;Residues: 1-5 <LEU>
A;Experimental source: pedal ganglia
C;Keywords: neuropeptide; opioid peptide

  Query Match             40.7%;  Score 11;  DB 2;  Length 5;
  Best Local Similarity   66.7%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          3 GLM 5
              | |
Db          3 GFM 5


RESULT 5
PT0240
Ig heavy chain CRD3 region (clone 2-100B) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0240
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0240
A;Molecule type: DNA
A;Residues: 1-4 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

  Query Match             37.0%;  Score 10;  DB 2;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GL 4
              ||
Db          3 GL 4


RESULT 6
A53284
T-cell receptor beta 2 chain D region, Dbeta2 - rabbit
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 02-May-1994 #sequence_revision 18-Nov-1994 #text_change 05-Nov-1999
C;Accession: A53284
R;Harindranath, N.; Alexander, C.B.; Mage, R.G.
Mol. Immunol. 28, 881-888, 1991
A;Title: Evolutionarily conserved organization and sequences of germline diversity and j
A;Reference number: A53284; MUID:91342695; PMID:1678859
A;Accession: A53284
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-4 <HAR>
A;Cross-references: GB:S60737; NID:g233916; PIDN:AAB19517.1; PID:g233917
A;Note: sequence extracted from NCBI backbone (NCBIN:60737, NCBIP:60739)
C;Keywords: T-cell receptor

  Query Match             37.0%;  Score 10;  DB 2;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GL 4
              ||
Db          1 GL 2


RESULT 7
G44817
27.5 kda structural protein - Leuconostoc oenos phage P32 (fragment)
C;Species: Leuconostoc oenos phage P32
C;Date: 31-Mar-1993 #sequence_revision 22-May-1998 #text_change 22-May-1998
C;Accession: G44817
R;Arendt, E.K.; Lonvaud, A.; Hammes, W.P.
J. Gen. Microbiol. 137, 2135-2139, 1991
A;Title: Lysogeny in Leuconostoc oenos.
A;Reference number: A44817; MUID:92085033; PMID:1748868
A;Accession: G44817
A;Molecule type: protein
A;Residues: 1-5 <ARE>
A;Note: sequence extracted from NCBI backbone (NCBIP:70333)

  Query Match             37.0%;  Score 10;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GL 4
              ||
Db          4 GL 5


RESULT 8
I44817
27.5K structural protein - Leuconostoc oenos phage P37 (fragment)
C;Species: Leuconostoc oenos phage P37
C;Date: 31-Mar-1993 #sequence_revision 22-May-1998 #text_change 22-May-1998
C;Accession: I44817
R;Arendt, E.K.; Lonvaud, A.; Hammes, W.P.
J. Gen. Microbiol. 137, 2135-2139, 1991
A;Title: Lysogeny in Leuconostoc oenos.
A;Reference number: A44817; MUID:92085033; PMID:1748868
A;Accession: I44817
A;Molecule type: protein
A;Residues: 1-5 <ARE>
A;Note: sequence extracted from NCBI backbone (NCBIP:70330)

  Query Match             37.0%;  Score 10;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy          3 GL 4
              ||
Db          4 GL 5
```

RESULT 9
E44817
27.5K structural protein - Leuconostoc oenos phage P54 (fragment)
C;Species: Leuconostoc oenos phage P54
C;Date: 31-Mar-1993 #sequence_revision 22-May-1998 #text_change 22-May-1998
C;Accession: E44817
R;Arendt, E.K.; Lonvaud, A.; Hammes, W.P.
J. Gen. Microbiol. 137, 2135-2139, 1991
A;Title: Lysogeny in Leuconostoc oenos.
A;Reference number: A44817; MUID:92085033; PMID:1748868
A;Accession: E44817
A;Molecule type: protein
A;Residues: 1-5 <ARE>
A;Note: sequence extracted from NCBI backbone (NCBIP:70336)

```
  Query Match             37.0%;  Score 10;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GL 4
              ||
Db          4 GL 5
```

RESULT 10
C44817
28.5K structural protein - Leuconostoc oenos phage PAt5-12 (fragment)
C;Species: Leuconostoc oenos phage PAt5-12
C;Date: 31-Mar-1993 #sequence_revision 22-May-1998 #text_change 22-May-1998
C;Accession: C44817
R;Arendt, E.K.; Lonvaud, A.; Hammes, W.P.
J. Gen. Microbiol. 137, 2135-2139, 1991
A;Title: Lysogeny in Leuconostoc oenos.
A;Reference number: A44817; MUID:92085033; PMID:1748868
A;Accession: C44817
A;Molecule type: protein
A;Residues: 1-5 <ARE>
A;Note: sequence extracted from NCBI backbone (NCBIP:70341)

```
  Query Match             37.0%;  Score 10;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GL 4
              ||
Db          4 GL 5
```

RESULT 11
A44817
28K structural protein - Leuconostoc oenos phage PZt11-15 (fragment)
C;Species: Leuconostoc oenos phage PZt11-15
C;Date: 31-Mar-1993 #sequence_revision 22-May-1998 #text_change 22-May-1998
C;Accession: A44817
R;Arendt, E.K.; Lonvaud, A.; Hammes, W.P.
J. Gen. Microbiol. 137, 2135-2139, 1991
A;Title: Lysogeny in Leuconostoc oenos.
A;Reference number: A44817; MUID:92085033; PMID:1748868
A;Accession: A44817
A;Molecule type: protein
A;Residues: 1-5 <ARE>
A;Note: sequence extracted from NCBI backbone (NCBIP:70343)

```
  Query Match             37.0%;  Score 10;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GL 4
              ||
Db          4 GL 5
```

RESULT 12
S68328
blood cell protein A - Molgula manhattensis (fragment)
C;Species: Molgula manhattensis
C;Date: 15-Jun-2001 #sequence_revision 15-Jun-2001 #text_change 15-Jun-2001
C;Accession: S68328
R;Taylor, S.W.; Ross, M.M.; Waite, J.H.
Arch. Biochem. Biophys. 324, 228-240, 1995
A;Title: Novel 3,4-di- and 3,4,5-trihydroxyphenylalanine-containing polypeptides from t
A;Reference number: S68325; MUID:96132650; PMID:8554314
A;Accession: S68328
A;Molecule type: protein
A;Residues: 1-3 <TAY>

```
  Query Match             33.3%;  Score 9;  DB 3;  Length 3;
  Best Local Similarity   50.0%;  Pred. No. 2.8e+05;
  Matches    1;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FF 2
              |:
Db          2 FY 3
```

RESULT 13
A32516
cholecystokinin-5 - dog
N;Alternate names: CCK-5
C;Species: Canis lupus familiaris (dog)
C;Date: 18-Oct-1989 #sequence_revision 18-Oct-1989 #text_change 18-Aug-2000
C;Accession: A32516
R;Shively, J.; Reeve Jr., J.R.; Eysselein, V.E.; Ben-Avram, C.; Vigna, S.R.; Walsh, J.H.
Am. J. Physiol. 252, G272-G275, 1987
A;Title: CCK-5: sequence analysis of a small cholecystokinin from canine brain and inte
A;Reference number: A32516; MUID:87153871; PMID:3826354
A;Accession: A32516
A;Molecule type: protein
A;Residues: 1-5 <SHI>
C;Comment: This peptide corresponds to the five carboxyl-terminal residues of cholecysto
C;Superfamily: gastrin
C;Keywords: amidated carboxyl end; neuropeptide
F;5/Modified site: amidated carboxyl end (Phe) #status experimental

```
  Query Match             33.3%;  Score 9;  DB 2;  Length 5;
  Best Local Similarity   66.7%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          3 GLM 5
              | |
Db          1 GWM 3
```

RESULT 14
PQ0689
photosystem I 10.4K H1 chain - common tobacco (fragment)
C;Species: Nicotiana tabacum (common tobacco)
C;Date: 19-May-1994 #sequence_revision 19-May-1994 #text_change 17-Mar-1999
C;Accession: PQ0689
R;Obokata, J.; Mikami, K.; Hayashida, N.; Nakamura, M.; Sugiura, M.
Plant Physiol. 102, 1259-1267, 1993
A;Title: Molecular heterogeneity of photosystem I. psaD, psaE, psaF, psaH and psaL are a
A;Reference number: PQ0667; MUID:94105345; PMID:8278548
A;Accession: PQ0689
A;Molecule type: protein
A;Residues: 1-5 <OBO>
C;Keywords: chloroplast; photosynthesis; photosystem I; thylakoid

```
  Query Match             33.3%;  Score 9;  DB 2;  Length 5;
  Best Local Similarity   50.0%;  Pred. No. 2.8e+05;
  Matches    1;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy          2 FG 3
              :|
Db          2 YG 3


RESULT 15
B61445
Leu-enkephalin - blue mussel
C;Species: Mytilus edulis (blue mussel)
C;Date: 07-Oct-1994 #sequence_revision 07-Oct-1994 #text_change 21-Jan-2000
C;Accession: B61445
R;Leung, M.K.; Stefano, G.B.
Proc. Natl. Acad. Sci. U.S.A. 81, 955-958, 1984
A;Title: Isolation and identification of enkephalins in pedal ganglia of Mytilus edulis
A;Reference number: A61445; MUID:84144823; PMID:6583690
A;Accession: B61445
A;Molecule type: protein
A;Residues: 1-5 <LEU>
A;Experimental source: pedal ganglia
C;Keywords: neuropeptide; opioid peptide

  Query Match             33.3%;  Score 9;  DB 2;  Length 5;
  Best Local Similarity   50.0%;  Pred. No. 2.8e+05;
  Matches    1;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FG 3
              :|
Db          1 YG 2


Search completed: March 23, 2005, 14:51:53
Job time : 25.5 secs
```

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 23, 2005, 14:21:29 ; Search time 112.5 Seconds
(without alignments)
22.759 Million cell updates/sec

Title: SEQ1
Perfect score: 27
Sequence: 1 ffglm 5

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 53

Minimum DB seq length: 0
Maximum DB seq length: 5

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	16	59.3	5	1	AL14_CARMA	P81817 carcinus ma
2	12	44.4	4	1	FFKA_ANTEL	P58705 anthopleura
3	12	44.4	4	1	OCP1_OCTMI	P58648 octopus min
4	12	44.4	5	1	PAP2_PARMA	P81864 pardachirus
5	12	44.4	5	1	RE11_LITRU	P82070 litoria rub
6	12	44.4	5	1	RE21_LITRU	P82071 litoria rub
7	12	44.4	5	1	RE31_LITRU	P82072 litoria rub
8	12	44.4	5	1	RE32_LITRU	P82073 litoria rub
9	12	44.4	5	1	UC22_MAIZE	P80628 zea mays (m
10	11	40.7	5	1	TPIS_CANFA	P54714 canis famil
11	9	33.3	4	1	FYRI_ANTEL	P58706 anthopleura
12	9	33.3	4	1	ILME_SEPOF	P83568 sepia offic
13	7	25.9	5	1	UF01_MOUSE	P38639 mus musculu
14	6	22.2	2	1	GWA_SEPOF	P83570 sepia offic
15	6	22.2	3	1	GRWM_HUMAN	P01157 homo sapien
16	6	22.2	4	1	ACH1_ACHFU	P35904 achatina fu
17	6	22.2	4	1	DCML_PSECH	P19916 pseudomonas
18	6	22.2	4	1	EOSI_HUMAN	P02731 homo sapien
19	6	22.2	4	1	FAR3_HIRME	P42562 hirudo medi
20	6	22.2	4	1	FAR4_HIRME	P42563 hirudo medi
21	6	22.2	4	1	FLRF_HIRME	P42561 hirudo medi
22	6	22.2	4	1	FLRN_ANTEL	P58707 anthopleura
23	6	22.2	4	1	FMRF_MACNI	P01162 macrocallis
24	6	22.2	4	1	OCP3_OCTMI	P58649 octopus min
25	6	22.2	4	2	Q16047	Q16047 homo sapien
26	6	22.2	5	1	AP21_EISFO	P84182 eisenia foe
27	6	22.2	5	1	EI03_LITRU	P82099 litoria rub
28	6	22.2	5	1	EI04_LITRU	P82100 litoria rub
29	6	22.2	5	1	FARP_ARTTR	P41853 artioposthi
30	6	22.2	5	1	FARP_CHICK	P83308 gallus gall
31	6	22.2	5	1	SUGA_ACHDO	P19991 acheta dome
32	6	22.2	5	1	UXA4_CHLTR	P38005 chlamydia t
33	5	18.5	4	1	DCMS_PSECH	P19918 pseudomonas
34	5	18.5	4	2	Q96AT0	Q96at0 homo sapien
35	5	18.5	5	1	BIOA_CITFR	P13071 citrobacter
36	5	18.5	5	1	BIOB_CITFR	P12997 citrobacter
37	5	18.5	5	2	Q99007	Q99007 hordeum vul
38	5	18.5	5	2	P83073	P83073 bacillus ce
39	4	14.8	4	2	Q08433	Q08433 rattus sp.
40	4	14.8	5	1	PRCT_CARMA	P67857 carcinus ma
41	4	14.8	5	1	PRCT_LIMPO	P67858 limulus pol
42	4	14.8	5	1	PRCT_PERAM	P67859 periplaneta
43	3	11.1	5	1	PSK_DAUCA	P58261 daucus caro
44	2	7.4	3	1	LUXE_VIBFI	P24272 vibrio fisc
45	1	3.7	4	1	YLM1_YEAST	P36515 saccharomyc

ALIGNMENTS

RESULT 1
AL14_CARMA
ID AL14_CARMA STANDARD; PRT; 5 AA.
AC P81817;
DT 30-MAY-2000 (Rel. 39, Created)
DT 30-MAY-2000 (Rel. 39, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Carcinustatin 14.
OS Carcinus maenas (Common shore crab) (Green crab).
OC Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX NCBI_TaxID=6759;
RN [1]
RP SEQUENCE.
RC TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX MEDLINE=98121193; PubMed=9461295;
RA Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA Thorpe A.;
RT "Isolation and identification of multiple neuropeptides of the
RT allatostatin superfamily in the shore crab Carcinus maenas.";
RL Eur. J. Biochem. 250:727-734(1997).
CC -!- FUNCTION: May act as a neurotransmitter or neuromodulator.
CC -!- SIMILARITY: Belongs to the allatostatin family.
KW Amidation; Direct protein sequencing; Multigene family; Neuropeptide.
FT MOD_RES 5 5 Leucine amide (Potential).
SQ SEQUENCE 5 AA; 586 MW; 672879D5AB300000 CRC64;

Query Match 59.3%; Score 16; DB 1; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.6e+06;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          2 FGL 4
              |||
Db          3 FGL 5
```

RESULT 2
FFKA_ANTEL
ID FFKA_ANTEL STANDARD; PRT; 4 AA.
AC P58705;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Antho-KAamide.
OS Anthopleura elegantissima (Sea anemone).
OC Eukaryota; Metazoa; Cnidaria; Anthozoa; Zoantharia; Actiniaria;
OC Nynantheae; Actiniidae; Anthopleura.
OX NCBI_TaxID=6110;
RN [1]
RP SEQUENCE.
RX MEDLINE=92028852; PubMed=1681803;
RA Nothacker H.-P., Rinehart K.L. Jr., Grimmelikhuijzen C.J.P.;
RT "Isolation of L-3-phenyllactyl-Phe-Lys-Ala-NH2 (Antho-KAamide), a

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RT   novel neuropeptide from sea anemones.";
RL   Biochem. Biophys. Res. Commun. 179:1205-1211(1991).
RN   [2]
RP   FUNCTION.
RX   MEDLINE=93391436; PubMed=8397415;
RA   McFarlane I.D., Hudman D., Nothacker H.-P., Grimmelikhuijzen C.J.P.;
RT   "The expansion behaviour of sea anemones may be coordinated by two
RT   inhibitory neuropeptides, Antho-KAamide and Antho-RIamide.";
RL   Proc. R. Soc. Lond., B, Biol. Sci. 253:183-188(1993).
CC   -!- FUNCTION: Inhibits spontaneous contractions in several muscle
CC       groups. May be involved in the expansion phase of feeding
CC       behaviour in sea anemones.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Neuron specific.
DR   PIR; JQ1273; JQ1273.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   MOD_RES       1      1       3-phenyllactic acid.
FT   MOD_RES       4      4       Alanine amide.
SQ   SEQUENCE   4 AA;  512 MW;  6DD339C9A0000000 CRC64;

  Query Match             44.4%;  Score 12;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FF 2
              ||
Db          1 FF 2


RESULT 3
OCP1_OCTMI
ID   OCP1_OCTMI     STANDARD;      PRT;     4 AA.
AC   P58648;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Cardioactive peptides Ocp-1/Ocp-2.
OS   Octopus minor (Octopus).
OC   Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC   Octopodiformes; Octopoda; Incirrata; Octopodidae; Octopus.
OX   NCBI_TaxID=89766;
RN   [1]
RP   SEQUENCE, SYNTHESIS, MASS SPECTROMETRY, AND CHARACTERIZATION.
RC   TISSUE=Brain;
RX   MEDLINE=20336815; PubMed=10876044; DOI=10.1016/S0196-9781(00)00201-1;
RA   Iwakoshi E., Hisada M., Minakata H.;
RT   "Cardioactive peptides isolated from the brain of a Japanese octopus,
RT   Octopus minor.";
RL   Peptides 21:623-630(2000).
CC   -!- FUNCTION: Cardioactive; has both positive chronotropic and
CC       inotropic effects on the heart. Ocp-2 is a 1000 time less active
CC       than Ocp-1.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- PTM: Ocp-2 has L-Phe instead of D-Phe.
CC   -!- MASS SPECTROMETRY: MW=395.2; METHOD=MALDI; RANGE=1-4; NOTE=Ref.1.
KW   D-amino acid; Direct protein sequencing; Hormone.
FT   MOD_RES       2      2       D-phenylalanine (in form Ocp-1).
SQ   SEQUENCE   4 AA;  394 MW;  6AA879C810000000 CRC64;

  Query Match             44.4%;  Score 12;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FG 3
              ||
Db          2 FG 3


RESULT 4
PAP2_PARMA
ID   PAP2_PARMA     STANDARD;      PRT;     5 AA.
AC   P81864;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Pardaxin II (PXII) (Fragment).
OS   Pardachirus marmoratus (Red sea moses sole).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC   Acanthomorpha; Acanthopterygii; Percomorpha; Pleuronectiformes;
OC   Soleoidei; Soleidae; Pardachirus.
OX   NCBI_TaxID=31087;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Skin secretion;
RX   MEDLINE=87057369; PubMed=3782138;
RA   Lazarovici P., Primor N., Loew L.M.;
RT   "Purification and pore-forming activity of two hydrophobic
RT   polypeptides from the secretion of the Red sea moses sole (Pardachirus
RT   marmoratus).";
RL   J. Biol. Chem. 261:16704-16713(1986).
CC   -!- FUNCTION: Exhibits unusual shark repellent and surfactant
CC       properties. Forms voltage-dependent, ion-permeable channels in
CC       membranes. At high concentration causes cell membrane lysis.
CC   -!- SUBUNIT: Monomer. In aqueous solution exists as a tetramer.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the pardaxin family.
KW   Direct protein sequencing; Toxin.
FT   NON_TER       5      5
SQ   SEQUENCE   5 AA;  614 MW;  7769C9C9C8100000 CRC64;

  Query Match             44.4%;  Score 12;  DB 1;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FF 2
              ||
Db          2 FF 3


RESULT 5
RE11_LITRU
ID   RE11_LITRU     STANDARD;      PRT;     5 AA.
AC   P82070;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Rubellidin 1.1.
OS   Litoria rubella (Desert tree frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC   Pelodryadinae; Litoria.
OX   NCBI_TaxID=104895;
RN   [1]
RP   SEQUENCE, AND MASS SPECTROMETRY.
RC   TISSUE=Skin secretion;
RA   Steinborner S.T., Wabnitz P.A., Waugh R.J., Bowie J.H., Gao C.,
RA   Tyler M.J., Wallace J.C.;
RT   "The structure of new peptides from the Australin red tree frog
RT   'Litoria rubella'. The skin peptide profile as a probe for the study
RT   of evolutionary trends of amphibians.";
RL   Aust. J. Chem. 49:955-963(1996).
CC   -!- FUNCTION: Shows neither neuropeptide activity nor antibiotic
CC       activity.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
CC   -!- MASS SPECTROMETRY: MW=598; METHOD=FAB; RANGE=1-5; NOTE=Ref.1.
KW   Amphibian defense peptide; Direct protein sequencing.
SQ   SEQUENCE   5 AA;  598 MW;  6DD9C9CAB2A00000 CRC64;

  Query Match             44.4%;  Score 12;  DB 1;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FF 2
              ||
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Db          3 FF 4


RESULT 6
RE21_LITRU
ID   RE21_LITRU     STANDARD;      PRT;     5 AA.
AC   P82071;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Rubellidin 2.1.
OS   Litoria rubella (Desert tree frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC   Pelodryadinae; Litoria.
OX   NCBI_TaxID=104895;
RN   [1]
RP   SEQUENCE, AND MASS SPECTROMETRY.
RC   TISSUE=Skin secretion;
RA   Steinborner S.T., Wabnitz P.A., Waugh R.J., Bowie J.H., Gao C.,
RA   Tyler M.J., Wallace J.C.;
RT   "The structure of new peptides from the Australin red tree frog
RT   'Litoria rubella'. The skin peptide profile as a probe for the study
RT   of evolutionary trends of amphibians.";
RL   Aust. J. Chem. 49:955-963(1996).
CC   -!- FUNCTION: Shows neither neuropeptide activity nor antibiotic
CC       activity.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
CC   -!- MASS SPECTROMETRY: MW=626; METHOD=FAB; RANGE=1-5; NOTE=Ref.1.
KW   Amphibian defense peptide; Direct protein sequencing.
SQ   SEQUENCE   5 AA;  626 MW;  6DD9C9CB10300000 CRC64;

  Query Match             44.4%;  Score 12;  DB 1;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FF 2
              ||
Db          3 FF 4


RESULT 7
RE31_LITRU
ID   RE31_LITRU     STANDARD;      PRT;     5 AA.
AC   P82072;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Rubellidin 3.1.
OS   Litoria rubella (Desert tree frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC   Pelodryadinae; Litoria.
OX   NCBI_TaxID=104895;
RN   [1]
RP   SEQUENCE, AND MASS SPECTROMETRY.
RC   TISSUE=Skin secretion;
RA   Steinborner S.T., Wabnitz P.A., Waugh R.J., Bowie J.H., Gao C.,
RA   Tyler M.J., Wallace J.C.;
RT   "The structure of new peptides from the Australin red tree frog
RT   'Litoria rubella'. The skin peptide profile as a probe for the study
RT   of evolutionary trends of amphibians.";
RL   Aust. J. Chem. 49:955-963(1996).
CC   -!- FUNCTION: Shows neither neuropeptide activity nor antibiotic
CC       activity.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
CC   -!- MASS SPECTROMETRY: MW=655; METHOD=FAB; RANGE=1-5; NOTE=Ref.1.
KW   Amidation; Amphibian defense peptide; Direct protein sequencing.
FT   MOD_RES       5       5       Threonine amide.
SQ   SEQUENCE   5 AA;  656 MW;  71A9C9CB10300000 CRC64;

  Query Match             44.4%;  Score 12;  DB 1;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FF 2
              ||
Db          3 FF 4


RESULT 8
RE32_LITRU
ID   RE32_LITRU     STANDARD;      PRT;     5 AA.
AC   P82073;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Rubellidin 3.2.
OS   Litoria rubella (Desert tree frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC   Pelodryadinae; Litoria.
OX   NCBI_TaxID=104895;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Skin secretion;
RA   Wabnitz P.A., Bowie J.H., Tyler M.J., Wallace J.C.;
RT   "Peptides from the skin glands of the Australian buzzing tree frog
RT   Litori electrica. Comparison with the skin peptides from Litoria
RT   rubella.";
RL   Aust. J. Chem. 52:639-645(1999).
CC   -!- FUNCTION: Shows neither neuropeptide activity nor antibiotic
CC       activity.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
KW   Amphibian defense peptide; Direct protein sequencing.
SQ   SEQUENCE   5 AA;  570 MW;  71A9C9C862A00000 CRC64;

  Query Match             44.4%;  Score 12;  DB 1;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FF 2
              ||
Db          3 FF 4


RESULT 9
UC22_MAIZE
ID   UC22_MAIZE     STANDARD;      PRT;     5 AA.
AC   P80628;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Unknown protein from 2D-PAGE of etiolated coleoptile (Spot 474)
DE   (Fragment).
OS   Zea mays (Maize).
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
OC   PACCAD clade; Panicoideae; Andropogoneae; Zea.
OX   NCBI_TaxID=4577;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Coleoptile;
RA   Touzet P., Riccardi F., Morin C., Damerval C., Huet J.-C.,
RA   Pernollet J.-C., Zivy M., de Vienne D.;
RT   "The maize two dimensional gel protein database: towards an integrated
RT   genome analysis program.";
RL   Theor. Appl. Genet. 93:997-1005(1996).
CC   -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC       protein is: 6.1, its MW is: 30.4 kDa.
DR   Maize-2DPAGE; P80628; COLEOPTILE.
DR   MaizeDB; 123954; -.
KW   Direct protein sequencing.
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FT   NON_TER       1      1
FT   NON_TER       5      5
SQ   SEQUENCE   5 AA;  654 MW;  72CB19C9C0300000 CRC64;

  Query Match             44.4%;  Score 12;  DB 1;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FF 2
              ||
Db          2 FF 3


RESULT 10
TPIS_CANFA
ID   TPIS_CANFA     STANDARD;      PRT;     5 AA.
AC   P54714;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Triosephosphate isomerase (EC 5.3.1.1) (TIM) (Triose-phosphate
DE   isomerase) (Fragment).
GN   Name=TPI1;
OS   Canis familiaris (Dog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX   NCBI_TaxID=9615;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Heart;
RX   MEDLINE=98163340; PubMed=9504812;
RA   Dunn M.J., Corbett J.M., Wheeler C.H.;
RT   "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT   dog heart proteins.";
RL   Electrophoresis 18:2795-2802(1997).
CC   -!- CATALYTIC ACTIVITY: D-glyceraldehyde 3-phosphate = glycerone
CC       phosphate.
CC   -!- PATHWAY: Plays an important role in several metabolic pathways.
CC   -!- SUBUNIT: Homodimer (By similarity).
CC   -!- SIMILARITY: Belongs to the triosephosphate isomerase family.
DR   HSC-2DPAGE; P54714; DOG.
DR   InterPro; IPR000652; Triophos_ismrse.
DR   PROSITE; PS00171; TIM; PARTIAL.
KW   Direct protein sequencing; Fatty acid biosynthesis; Gluconeogenesis;
KW   Glycolysis; Isomerase; Pentose shunt.
FT   NON_TER       1      1
FT   NON_TER       5      5
SQ   SEQUENCE   5 AA;  550 MW;  64444862C9A00000 CRC64;

  Query Match             40.7%;  Score 11;  DB 1;  Length 5;
  Best Local Similarity   66.7%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FFG 3
              | |
Db          1 FVG 3


RESULT 11
FYRI_ANTEL
ID   FYRI_ANTEL     STANDARD;      PRT;     4 AA.
AC   P58706;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Antho-RIamide I [Contains: Antho-RIamide II].
OS   Anthopleura elegantissima (Sea anemone).
OC   Eukaryota; Metazoa; Cnidaria; Anthozoa; Zoantharia; Actiniaria;
OC   Nynantheae; Actiniidae; Anthopleura.
OX   NCBI_TaxID=6110;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=92270459; PubMed=1821096; DOI=10.1016/0196-9781(91)90190-Z;
RA   Nothacker H.-P., Rinehart K.L. Jr., McFarlane I.D.,
RA   Grimmelikhuijzen C.J.P.;
RT   "Isolation of two novel neuropeptides from sea anemones: the unusual,
RT   biologically active L-3-phenyllactyl-Tyr-Arg-Ile-NH2 and its des-
RT   phenyllactyl fragment Tyr-Arg-Ile-NH2.";
RL   Peptides 12:1165-1173(1991).
RN   [2]
RP   FUNCTION.
RX   MEDLINE=93391436; PubMed=8397415;
RA   McFarlane I.D., Hudman D., Nothacker H.-P., Grimmelikhuijzen C.J.P.;
RT   "The expansion behaviour of sea anemones may be coordinated by two
RT   inhibitory neuropeptides, Antho-KAamide and Antho-RIamide.";
RL   Proc. R. Soc. Lond., B, Biol. Sci. 253:183-188(1993).
CC   -!- FUNCTION: Inhibits spontaneous contractions in several muscle
CC       groups. May be involved in the expansion phase of feeding
CC       behaviour in sea anemones.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Neuron specific.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   CHAIN         1      4       Antho-RIamide I.
FT   CHAIN         2      4       Antho-RIamide II.
FT   MOD_RES       1      1       3-phenyllactic acid.
FT   MOD_RES       4      4       Isoleucine amide.
SQ   SEQUENCE   4 AA;  598 MW;  60441B59A0000000 CRC64;

  Query Match             33.3%;  Score 9;  DB 1;  Length 4;
  Best Local Similarity   50.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FF 2
              |:
Db          1 FY 2


RESULT 12
ILME_SEPOF
ID   ILME_SEPOF     STANDARD;      PRT;     4 AA.
AC   P83568;
DT   29-MAR-2004 (Rel. 43, Created)
DT   29-MAR-2004 (Rel. 43, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Pheromone peptide ILME.
OS   Sepia officinalis (Common cuttlefish).
OC   Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC   Decapodiformes; Sepioidea; Sepiidae; Sepia.
OX   NCBI_TaxID=6610;
RN   [1]
RP   SEQUENCE, SUBCELLULAR LOCATION, TISSUE SPECIFICITY, AND MASS
RP   SPECTROMETRY.
RC   TISSUE=Egg;
RX   MEDLINE=20403899; PubMed=10944467; DOI=10.1006/bbrc.2000.3286;
RA   Zatylny C., Gagnon J., Boucaud-Camou E., Henry J.;
RT   "ILME: a waterborne pheromonal peptide released by the eggs of Sepia
RT   officinalis.";
RL   Biochem. Biophys. Res. Commun. 275:217-222(2000).
RN   [2]
RP   SEQUENCE.
RC   TISSUE=Egg;
RX   MEDLINE=22197108; PubMed=12207899; DOI=10.1016/S0006-291X(02)02036-3;
RA   Zatylny C., Marvin L., Gagnon J., Henry J.;
RT   "Fertilization in Sepia officinalis: the first mollusk sperm-
RT   attracting peptide.";
RL   Biochem. Biophys. Res. Commun. 296:1186-1193(2002).
CC   -!- FUNCTION: Has myotropic activity targeting the genital tract.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Follicle, fully grown oocyte and egg(EC2).
CC   -!- MASS SPECTROMETRY: MW=505.4; METHOD=MALDI; RANGE=1-4; NOTE=Ref.1.
KW   Direct protein sequencing; Pheromone.
SQ   SEQUENCE   4 AA;  505 MW;  6B16972030000000 CRC64;

  Query Match             33.3%;  Score 9;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
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Qy          4 LM 5
              ||
Db          2 LM 3


RESULT 13
UF01_MOUSE
ID   UF01_MOUSE     STANDARD;      PRT;     5 AA.
AC   P38639;
DT   01-OCT-1994 (Rel. 30, Created)
DT   01-OCT-1994 (Rel. 30, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Unknown protein from 2D-PAGE of fibroblasts (P19) (Fragment).
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Fibroblast;
RX   MEDLINE=95009907; PubMed=7523108;
RA   Merrick B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;
RT   "Separation and sequencing of familiar and novel murine proteins using
RT   preparative two-dimensional gel electrophoresis.";
RL   Electrophoresis 15:735-745(1994).
CC   -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC       protein is: 6.6, its MW is: 19 kDa.
KW   Direct protein sequencing.
FT   NON_TER       5       5
SQ   SEQUENCE   5 AA;  717 MW;  7364087043100000 CRC64;

  Query Match             25.9%;  Score 7;  DB 1;  Length 5;
  Best Local Similarity   33.3%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FFG 3
              : |
Db          1 WIG 3


RESULT 14
GWA_SEPOF
ID   GWA_SEPOF      STANDARD;      PRT;     2 AA.
AC   P83570;
DT   29-MAR-2004 (Rel. 43, Created)
DT   29-MAR-2004 (Rel. 43, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Neuropeptide GWa.
OS   Sepia officinalis (Common cuttlefish).
OC   Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC   Decapodiformes; Sepioidea; Sepiidae; Sepia.
OX   NCBI_TaxID=6610;
RN   [1]
RP   SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND AMIDATION.
RC   TISSUE=Optic lobe;
RX   MEDLINE=98100358; PubMed=9437704; DOI=10.1016/S0196-9781(97)00241-6;
RA   Henry J., Favrel P., Boucaud-Camou E.;
RT   "Isolation and identification of a novel Ala-Pro-Gly-Trp-amide-related
RT   peptide inhibiting the motility of the mature oviduct in the
RT   cuttlefish, Sepia officinalis.";
RL   Peptides 18:1469-1474(1997).
CC   -!- FUNCTION: Regulatory neuropeptide with myotropic activity
CC       targeting the distal oviduct. Inhibits the motility of the oviduct
CC       by decreasing tonus, frequency and amplitude of contractions.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- MASS SPECTROMETRY: MW=259.9; METHOD=MALDI; RANGE=1-2; NOTE=Ref.1.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   MOD_RES       2       2       Tryptophan amide.
SQ   SEQUENCE   2 AA;  261 MW;  7378100000000000 CRC64;

  Query Match             22.2%;  Score 6;  DB 1;  Length 2;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 G 3
              |
Db          1 G 1


RESULT 15
GRWM_HUMAN
ID   GRWM_HUMAN     STANDARD;      PRT;     3 AA.
AC   P01157;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Growth-modulating peptide.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=77162369; PubMed=858356;
RA   Schlesinger D.H., Pickart L., Thaler M.M.;
RT   "Growth-modulating serum tripeptide is glycyl-histidyl-lysine.";
RL   Experientia 33:324-325(1977).
CC   -!- MISCELLANEOUS: This serum tripeptide has been found to stimulate
CC       growth of some cell types and to inhibit other types in vitro.
DR   GO; GO:0001558; P:regulation of cell growth; NAS.
KW   Direct protein sequencing.
SQ   SEQUENCE   3 AA;  340 MW;  6331E81000000000 CRC64;

  Query Match             22.2%;  Score 6;  DB 1;  Length 3;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 G 3
              |
Db          1 G 1


Search completed: March 23, 2005, 14:49:56
Job time : 117.5 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 23, 2005, 15:19:16 ; Search time 68 Seconds
(without alignments)
28.438 Million cell updates/sec

Title: SEQ1
Perfect score: 27
Sequence: 1 ffglm 5

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 45841

Minimum DB seq length: 0
Maximum DB seq length: 5

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_16Dec04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	27	100.0	5	2	AAR33009	Aar33009 Alpha-sub
2	27	100.0	5	2	AAR33008	Aar33008 Alpha-sub
3	27	100.0	5	2	AAR33007	Aar33007 Alpha-sub
4	27	100.0	5	2	AAR33010	Aar33010 Alpha-sub
5	27	100.0	5	2	AAR54549	Aar54549 Cholecyst
6	27	100.0	5	2	AAR54551	Aar54551 Cholecyst
7	27	100.0	5	2	AAR54550	Aar54550 Cholecyst
8	27	100.0	5	2	AAR54548	Aar54548 Cholecyst
9	27	100.0	5	2	AAW41687	Aaw41687 Tetrapept
10	27	100.0	5	2	AAW99643	Aaw99643 Substance
11	27	100.0	5	2	AAY50325	Aay50325 Neutrophi
12	27	100.0	5	2	AAW92660	Aaw92660 Human tac
13	27	100.0	5	3	AAB23025	Aab23025 Human/rat
14	27	100.0	5	3	AAY67576	Aay67576 P antagon
15	27	100.0	5	4	AAB91428	Aab91428 Tachykini
16	27	100.0	5	5	ABB10088	Abb10088 Substance
17	27	100.0	5	5	AAU77845	Aau77845 Tachykini
18	27	100.0	5	7	ADE94203	Ade94203 High acti
19	27	100.0	5	7	ADF92530	Adf92530 Substance
20	27	100.0	5	8	ADN95078	Adn95078 Mammalian
21	27	100.0	5	8	ADR43771	Adr43771 Human mag
22	24	88.9	5	2	AAW92702	Aaw92702 Human tac
23	24	88.9	5	5	ABB10089	Abb10089 Substance
24	24	88.9	5	7	ADE94204	Ade94204 High acti
25	22	81.5	5	2	AAR27697	Aar27697 Cyclic ta
26	22	81.5	5	2	AAW92703	Aaw92703 Human tac
27	22	81.5	5	2	AAW92701	Aaw92701 Human tac
28	21	77.8	4	2	AAW41683	Aaw41683 Peptide u
29	21	77.8	4	2	AAY31075	Aay31075 Non-cross
30	21	77.8	4	3	AAB23026	Aab23026 Human/rat
31	21	77.8	4	3	AAY67577	Aay67577 P antagon
32	21	77.8	4	4	AAB91447	Aab91447 Tachykini
33	21	77.8	4	5	ABB10091	Abb10091 Substance
34	21	77.8	4	5	AAU77846	Aau77846 Tachykini
35	21	77.8	4	7	ADE94198	Ade94198 High acti
36	21	77.8	4	8	ADR43772	Adr43772 Human mag
37	21	77.8	5	4	AAB91389	Aab91389 Tachykini
38	21	77.8	5	5	ABB10090	Abb10090 Substance
39	21	77.8	5	6	AAE35975	Aae35975 Zea mays
40	21	77.8	5	7	ADE94205	Ade94205 High acti
41	21	77.8	5	8	ADR03603	Adr03603 E. coli m
42	20	74.1	5	2	AAW80134	Aaw80134 COOH-term
43	20	74.1	5	2	AAR41695	Aar41695 GHRP-6 (G
44	20	74.1	5	2	AAR47524	Aar47524 GHRP-6 an
45	20	74.1	5	2	AAW13221	Aaw13221 Growth ho

ALIGNMENTS

RESULT 1
AAR33009
ID AAR33009 standard; peptide; 5 AA.
XX
AC AAR33009;
XX
DT 25-MAR-2003 (revised)
DT 02-APR-1993 (first entry)
XX
DE Alpha-substituted short peptide.
XX
KW CCK; neuropeptide; endorphin; hormone; LHRH; contraception; analgesia;
KW improved bioavailability.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 4
FT /note= "alpha-Me-Leu"
FT Modified-site 5
FT /note= "Met-NH2"
XX
PN WO9219254-A1.
XX
PD 12-NOV-1992.
XX
PF 15-APR-1992; 92WO-US003119.
XX
PR 24-APR-1991; 91US-00690755.
PR 20-MAR-1992; 92US-00852086.
XX
PA (WARN) WARNER LAMBERT CO.
XX
PI Horwell DC, Hughes J, Richardson RS, Howson W;
XX
DR WPI; 1992-398522/48.
XX
PT New alpha-substd. polypeptide are e.g. selective receptor ligands - for
PT treating inflammation, pain, stroke, ulcers, hypertension, heart failure,
PT depression, cancer, asthma, psychosis, arthritis, etc.
XX
PS Claim 3; Page 41; 46pp; English.
XX
CC The peptide is a specifically claimed example of a group of generically
CC claimed mono-, di-, tri-, tetra- and penta-peptides which include a
CC substituent on an alpha-C atom in the chain. Such substitution may modify
CC the bioavailability, stability or absorbability of the peptide and hence
CC may improve the activity of the peptide as a drug. Depending on the

```
CC   nature of the parent peptide (hormone, endorphin, CCK, NK2, chemotactic
CC   peptide, etc.), the modified peptides are variously useful for treating
CC   obesity, anxiety, gastrointestinal ulcers, pain, stroke, inflammation,
CC   addictive drug withdrawal symptoms, hypertension, heart failure,
CC   cognition or memory disorders, spasticity, depression, diabetes, cancer,
CC   asthma, bladder dysfunction, psychosis and arthritis; and as
CC   contraceptives. (Updated on 25-MAR-2003 to correct PN field.) (Updated on
CC   25-MAR-2003 to correct PD field.) (Updated on 25-MAR-2003 to correct PR
CC   field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 2
AAR33008
ID   AAR33008 standard; peptide; 5 AA.
XX
AC   AAR33008;
XX
DT   25-MAR-2003  (revised)
DT   02-APR-1993  (first entry)
XX
DE   Alpha-substituted short peptide.
XX
KW   CCK; neuropeptide; endorphin; hormone; LHRH; contraception; analgesia;
KW   improved bioavailability.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   2
FT                   /note= "alpha-Me-Phe"
FT   Modified-site   5
FT                   /note= "Met-NH2"
XX
PN   WO9219254-A1.
XX
PD   12-NOV-1992.
XX
PF   15-APR-1992;   92WO-US003119.
XX
PR   24-APR-1991;   91US-00690755.
PR   20-MAR-1992;   92US-00852086.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Hughes J,  Richardson RS,  Howson W;
XX
DR   WPI; 1992-398522/48.
XX
PT   New alpha-substd. polypeptide are e.g. selective receptor ligands - for
PT   treating inflammation, pain, stroke, ulcers, hypertension, heart failure,
PT   depression, cancer, asthma, psychosis, arthritis, etc.
XX
PS   Claim 3; Page 41; 46pp; English.
XX
CC   The peptide is a specifically claimed example of a group of generically
CC   claimed mono-, di-, tri-, tetra- and penta-peptides which include a
CC   substituent on an alpha-C atom in the chain. Such substitution may modify
CC   the bioavailability, stability or absorbability of the peptide and hence
CC   may improve the activity of the peptide as a drug. Depending on the
CC   nature of the parent peptide (hormone, endorphin, CCK, NK2, chemotactic
CC   peptide, etc.), the modified peptides are variously useful for treating
CC   obesity, anxiety, gastrointestinal ulcers, pain, stroke, inflammation,
CC   addictive drug withdrawal symptoms, hypertension, heart failure,
CC   cognition or memory disorders, spasticity, depression, diabetes, cancer,
CC   asthma, bladder dysfunction, psychosis and arthritis; and as
CC   contraceptives. (Updated on 25-MAR-2003 to correct PN field.) (Updated on
CC   25-MAR-2003 to correct PD field.) (Updated on 25-MAR-2003 to correct PR
CC   field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 3
AAR33007
ID   AAR33007 standard; peptide; 5 AA.
XX
AC   AAR33007;
XX
DT   25-MAR-2003  (revised)
DT   02-APR-1993  (first entry)
XX
DE   Alpha-substituted short peptide.
XX
KW   CCK; neuropeptide; endorphin; hormone; LHRH; contraception; analgesia;
KW   improved bioavailability.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "alpha-Me-Phe"
FT   Modified-site   5
FT                   /note= "Met-NH2"
XX
PN   WO9219254-A1.
XX
PD   12-NOV-1992.
XX
PF   15-APR-1992;   92WO-US003119.
XX
PR   24-APR-1991;   91US-00690755.
PR   20-MAR-1992;   92US-00852086.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Hughes J,  Richardson RS,  Howson W;
XX
DR   WPI; 1992-398522/48.
XX
PT   New alpha-substd. polypeptide are e.g. selective receptor ligands - for
PT   treating inflammation, pain, stroke, ulcers, hypertension, heart failure,
PT   depression, cancer, asthma, psychosis, arthritis, etc.
XX
PS   Claim 3; Page 41; 46pp; English.
XX
CC   The peptide is a specifically claimed example of a group of generically
CC   claimed mono-, di-, tri-, tetra- and penta-peptides which include a
CC   substituent on an alpha-C atom in the chain. Such substitution may modify
CC   the bioavailability, stability or absorbability of the peptide and hence
CC   may improve the activity of the peptide as a drug. Depending on the
CC   nature of the parent peptide (hormone, endorphin, CCK, NK2, chemotactic
CC   peptide, etc.), the modified peptides are variously useful for treating
CC   obesity, anxiety, gastrointestinal ulcers, pain, stroke, inflammation,
CC   addictive drug withdrawal symptoms, hypertension, heart failure,
CC   cognition or memory disorders, spasticity, depression, diabetes, cancer,
CC   asthma, bladder dysfunction, psychosis and arthritis; and as
CC   contraceptives. (Updated on 25-MAR-2003 to correct PN field.) (Updated on
CC   25-MAR-2003 to correct PD field.) (Updated on 25-MAR-2003 to correct PR
```

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CC   field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 4
AAR33010
ID   AAR33010 standard; peptide; 5 AA.
XX
AC   AAR33010;
XX
DT   25-MAR-2003  (revised)
DT   02-APR-1993  (first entry)
XX
DE   Alpha-substituted short peptide.
XX
KW   CCK; neuropeptide; endorphin; hormone; LHRH; contraception; analgesia;
KW   improved bioavailability.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   5
FT                   /note= "alpha-Me-Met-NH2"
XX
PN   WO9219254-A1.
XX
PD   12-NOV-1992.
XX
PF   15-APR-1992;   92WO-US003119.
XX
PR   24-APR-1991;   91US-00690755.
PR   20-MAR-1992;   92US-00852086.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Hughes J,  Richardson RS,  Howson W;
XX
DR   WPI; 1992-398522/48.
XX
PT   New alpha-substd. polypeptide are e.g. selective receptor ligands - for
PT   treating inflammation, pain, stroke, ulcers, hypertension, heart failure,
PT   depression, cancer, asthma, psychosis, arthritis, etc.
XX
PS   Claim 3; Page 41; 46pp; English.
XX
CC   The peptide is a specifically claimed example of a group of generically
CC   claimed mono-, di-, tri-, tetra- and penta-peptides which include a
CC   substituent on an alpha-C atom in the chain. Such substitution may modify
CC   the bioavailability, stability or absorbability of the peptide and hence
CC   may improve the activity of the peptide as a drug. Depending on the
CC   nature of the parent peptide (hormone, endorphin, CCK, NK2, chemotactic
CC   peptide, etc.), the modified peptides are variously useful for treating
CC   obesity, anxiety, gastrointestinal ulcers, pain, stroke, inflammation,
CC   addictive drug withdrawal symptoms, hypertension, heart failure,
CC   cognition or memory disorders, spasticity, depression, diabetes, cancer,
CC   asthma, bladder dysfunction, psychosis and arthritis; and as
CC   contraceptives. (Updated on 25-MAR-2003 to correct PN field.) (Updated on
CC   25-MAR-2003 to correct PD field.) (Updated on 25-MAR-2003 to correct PR
CC   field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 5
AAR54549
ID   AAR54549 standard; peptide; 5 AA.
XX
AC   AAR54549;
XX
DT   25-MAR-2003  (revised)
DT   14-DEC-1994  (first entry)
XX
DE   Cholecystokinin analogue peptide #42.
XX
KW   Peptide analogue; peptoid; cholecystokinin; CCK; obesity; anxiety;
KW   gastrointestinal ulcers; pain; stroke; inflammation; hypertension;
KW   heart failure; cognition; memory enhancement; spasticity; depression;
KW   diabetes; cancers; asthma; bladder dysfunction; psychosis; arthritis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   2
FT                   /label= MePhe
FT   Modified-site   5
FT                   /note= "Amidated C-terminal"
XX
PN   WO9409031-A1.
XX
PD   28-APR-1994.
XX
PF   14-OCT-1993;   93WO-US009809.
XX
PR   19-OCT-1992;   92US-00963169.
PR   08-OCT-1993;   93US-00131693.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Howson W,  Hugues J,  Richardson RS;
XX
DR   WPI; 1994-151243/18.
XX
PT   New cholecystokinin analogues - useful e.g. in treatment of pain,
PT   obesity, stroke, anxiety, and gastrointestinal ulcers.
XX
PS   Claim 3; Page 66; 73pp; English.
XX
CC   The sequences given in AAR53117-38 and AAR54530-51 are peptide analogues
CC   of cholecystokinin (CCK) which can be used to treat obesity, anxiety,
CC   gastrointestinal ulcers, pain, stroke, inflammation, hypertension, heart
CC   failure, cognition, memory enhancement, spasticity, depression, diabetes,
CC   cancers, asthma, bladder dysfunction, psychosis, arthritis and in the
CC   treatment of substance withdrawl. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 6
AAR54551
ID   AAR54551 standard; peptide; 5 AA.
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XX
AC   AAR54551;
XX
DT   25-MAR-2003  (revised)
DT   14-DEC-1994  (first entry)
XX
DE   Cholecystokinin analogue peptide #44.
XX
KW   Peptide analogue; peptoid; cholecystokinin; CCK; obesity; anxiety;
KW   gastrointestinal ulcers; pain; stroke; inflammation; hypertension;
KW   heart failure; cognition; memory enhancement; spasticity; depression;
KW   diabetes; cancers; asthma; bladder dysfunction; psychosis; arthritis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   5
FT                   /label= MeMet
FT                   /note= "Amidated C-terminal"
XX
PN   WO9409031-A1.
XX
PD   28-APR-1994.
XX
PF   14-OCT-1993;   93WO-US009809.
XX
PR   19-OCT-1992;   92US-00963169.
PR   08-OCT-1993;   93US-00131693.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Howson W,  Hugues J,  Richardson RS;
XX
DR   WPI; 1994-151243/18.
XX
PT   New cholecystokinin analogues - useful e.g. in treatment of pain,
PT   obesity, stroke, anxiety, and gastrointestinal ulcers.
XX
PS   Claim 3; Page 66; 73pp; English.
XX
CC   The sequences given in AAR53117-38 and AAR54530-51 are peptide analogues
CC   of cholecystokinin (CCK) which can be used to treat obesity, anxiety,
CC   gastrointestinal ulcers, pain, stroke, inflammation, hypertension, heart
CC   failure, cognition, memory enhancement, spasticity, depression, diabetes,
CC   cancers, asthma, bladder dysfunction, psychosis, arthritis and in the
CC   treatment of substance withdrawl. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 7
AAR54550
ID   AAR54550 standard; peptide; 5 AA.
XX
AC   AAR54550;
XX
DT   25-MAR-2003  (revised)
DT   14-DEC-1994  (first entry)
XX
DE   Cholecystokinin analogue peptide #43.
XX
KW   Peptide analogue; peptoid; cholecystokinin; CCK; obesity; anxiety;
KW   gastrointestinal ulcers; pain; stroke; inflammation; hypertension;
KW   heart failure; cognition; memory enhancement; spasticity; depression;
KW   diabetes; cancers; asthma; bladder dysfunction; psychosis; arthritis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   3
FT                   /label= MeLeu
FT   Modified-site   5
FT                   /note= "Amidated C-terminal"
XX
PN   WO9409031-A1.
XX
PD   28-APR-1994.
XX
PF   14-OCT-1993;   93WO-US009809.
XX
PR   19-OCT-1992;   92US-00963169.
PR   08-OCT-1993;   93US-00131693.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Howson W,  Hugues J,  Richardson RS;
XX
DR   WPI; 1994-151243/18.
XX
PT   New cholecystokinin analogues - useful e.g. in treatment of pain,
PT   obesity, stroke, anxiety, and gastrointestinal ulcers.
XX
PS   Claim 3; Page 66; 73pp; English.
XX
CC   The sequences given in AAR53117-38 and AAR54530-51 are peptide analogues
CC   of cholecystokinin (CCK) which can be used to treat obesity, anxiety,
CC   gastrointestinal ulcers, pain, stroke, inflammation, hypertension, heart
CC   failure, cognition, memory enhancement, spasticity, depression, diabetes,
CC   cancers, asthma, bladder dysfunction, psychosis, arthritis and in the
CC   treatment of substance withdrawl. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 8
AAR54548
ID   AAR54548 standard; peptide; 5 AA.
XX
AC   AAR54548;
XX
DT   25-MAR-2003  (revised)
DT   14-DEC-1994  (first entry)
XX
DE   Cholecystokinin analogue peptide #41.
XX
KW   Peptide analogue; peptoid; cholecystokinin; CCK; obesity; anxiety;
KW   gastrointestinal ulcers; pain; stroke; inflammation; hypertension;
KW   heart failure; cognition; memory enhancement; spasticity; depression;
KW   diabetes; cancers; asthma; bladder dysfunction; psychosis; arthritis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /label= MePhe
FT   Modified-site   5
FT                   /note= "Amidated C-terminal"
XX
```

PN WO9409031-A1.
XX
PD 28-APR-1994.
XX
PF 14-OCT-1993; 93WO-US009809.
XX
PR 19-OCT-1992; 92US-00963169.
PR 08-OCT-1993; 93US-00131693.
XX
PA (WARN) WARNER LAMBERT CO.
XX
PI Horwell DC, Howson W, Hugues J, Richardson RS;
XX
DR WPI; 1994-151243/18.
XX
PT New cholecystokinin analogues - useful e.g. in treatment of pain,
PT obesity, stroke, anxiety, and gastrointestinal ulcers.
XX
PS Claim 3; Page 66; 73pp; English.
XX
CC The sequences given in AAR53117-38 and AAR54530-51 are peptide analogues
CC of cholecystokinin (CCK) which can be used to treat obesity, anxiety,
CC gastrointestinal ulcers, pain, stroke, inflammation, hypertension, heart
CC failure, cognition, memory enhancement, spasticity, depression, diabetes,
CC cancers, asthma, bladder dysfunction, psychosis, arthritis and in the
CC treatment of substance withdrawl. (Updated on 25-MAR-2003 to correct PN
CC field.)
XX
SQ Sequence 5 AA;

Query Match 100.0%; Score 27; DB 2; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FFGLM 5
|||||
Db 1 FFGLM 5

RESULT 9
AAW41687
ID AAW41687 standard; peptide; 5 AA.
XX
AC AAW41687;
XX
DT 09-JUN-1998 (first entry)
XX
DE Tetrapeptide #4.
XX
KW Ophthalmic drug; corneal disorder; ulcer; epithelial peeling; dry eye;
KW keratitis; insulin like growth factor-I; IGF-I; eye drop.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 5
FT /note= "C-terminal amide"
XX
PN WO9749419-A1.
XX
PD 31-DEC-1997.
XX
PF 11-JUN-1997; 97WO-JP002015.
XX
PR 26-JUN-1996; 96JP-00165612.
XX
PA (SANT) SANTEN PHARM CO LTD.
XX
PI Nishida T, Nakamura M, Nakata K;
XX
DR WPI; 1998-076907/07.
XX
PT Ophthalmic drug composition containing tetra:peptide - is useful as
PT corneal disorder remedy for corneal ulcer, corneal epithelial peeling,
PT dry eye, keratitis.
XX
PS Disclosure; Page 11; 19pp; Japanese.
XX
CC This sequence is shown in the specification. The invention relates to an
CC ophthalmic drug composition which contains Phe-Gly-Leu-Met-NH2 or its
CC medicinally acceptable salts as the active ingredient. It is used,
CC together with insulin like growth factor-I (IGF-I), to treat corneal
CC disorders such as corneal ulcer, corneal epithelial peeling, dry eye and
CC keratitis. The dosage is 0.1-5000 (preferably 1-1000) mg/day of the
CC active ingredient and 0.001-100 (preferably 0.01-10) mg/day of IGF-I. The
CC preferable form of the composition is eye drops
XX
SQ Sequence 5 AA;

Query Match 100.0%; Score 27; DB 2; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FFGLM 5
|||||
Db 1 FFGLM 5

RESULT 10
AAW99643
ID AAW99643 standard; peptide; 5 AA.
XX
AC AAW99643;
XX
DT 21-MAY-1999 (first entry)
XX
DE Substance P analogue peptide.
XX
KW Substance P; myoblast transfer therapy; pain relief; analgesic;
KW behavioural abnormality; perceptive abnormality; opioid receptor;
KW psychiatric condition; depression; chronic anxiety syndrome; paranoia;
KW alcoholism; drug addiction; chronic pain; neuron.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN EP898967-A1.
XX
PD 03-MAR-1999.
XX
PF 07-APR-1998; 98EP-00201068.
XX
PR 11-AUG-1997; 97US-0055199P.
XX
PA (CELL-) CELL THERAPY RES FOUND.
XX
PI Law PK;
XX
DR WPI; 1999-144555/13.
XX
PT New composition for supplying peptide to opioid receptor - comprises
PT myogenic cells containing heterologous DNA encoding peptide and carrier.
XX
PS Claim 8; Page 8; 11pp; English.
XX
CC A composition has been developed for supplying a peptide to an opioid
CC receptor or that interferes with binding of substance P to its receptor.
CC The composition comprises: (a) myogenic cells that contain heterologous
CC DNA encoding the peptide to express the peptide; and (b) a
CC pharmaceutically acceptable carrier. The composition is useful for
CC relieving pain and for treating behavioural and perceptive abnormalities
CC using myoblast transfer therapy. It is useful in a method for treating
CC psychiatric conditions that involve abnormal perception e.g. depression,
CC chronic anxiety syndromes, paranoia, alcoholism and drug addiction,
CC chronic pain and other diseases in which opioid neurons and substance P
CC sensitive neurons play a role. The composition provides a continuous,

```
CC   long term supply of opioid peptides (long-term analgesia) which lasts for
CC   up to at least 6 years. The present sequence represents a specifically
CC   claimed substance P analogue
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 11
AAY50325
ID   AAY50325 standard; peptide; 5 AA.
XX
AC   AAY50325;
XX
DT   12-JAN-2000  (first entry)
XX
DE   Neutrophil-activating pancreatic derived peptide 125.
XX
KW   Cell activation; pancreas; treatment; cardiovascular disease; trauma;
KW   inflammatory disease; autoimmune diseases; arthritis; diabetes; stroke;
KW   organ rejection; ischemia; Alzheimer's disease; myocardial infarction;
KW   haemorrhagic shock; diabetic retinopathy; venous insufficiency; angina;
KW   trauma; protease inhibitor; hypertension; sepsis.
XX
OS   Unidentified.
XX
PN   WO9946367-A2.
XX
PD   16-SEP-1999.
XX
PF   11-MAR-1999;   99WO-US005247.
XX
PR   11-MAR-1998;   98US-00038894.
XX
PA   (CELL-) CELL ACTIVATION INC.
PA   (REGC ) UNIV CALIFORNIA.
PA   (SCRI ) SCRIPPS RES INST.
XX
PI   Stoughton RB,  Schmid-Schonbein GW,  Hugli TE,  Kistler E;
XX
DR   WPI; 1999-580234/49.
XX
PT   Use of cell activating compositions in developing products for diagnosis
PT   and treatment of e.g. cardiovascular, inflammatory, autoimmune or
PT   Alzheimer's disease, trauma, arthritis, organ rejection, diabetes, stroke
PT   or ischemia.
XX
PS   Example 9; Page 184; 184pp; English.
XX
CC   This invention describes a novel method for the use and preparation of
CC   cell activating compositions which involves preparing a cell activating
CC   composition comprising (a) homogenizing pancreatic tissue in buffer at
CC   about neutral or higher pH to produce a homogenate; (b) removing
CC   particulates from the homogenate; (c) optionally incubating the resulting
CC   homogenate, with particulates removed, with a protease; and (d)
CC   fractionating the homogenate and selecting fractions that exhibit cell
CC   activation activity. The methods can be used for improving treatment
CC   outcome or reducing risk of treatment of e.g. cardiovascular disease,
CC   inflammatory disease, trauma, autoimmune diseases, arthritis, organ
CC   rejection, diabetes and diabetic complications, stroke, ischemia,
CC   Alzheimer's disease, myocardial infarction, haemorrhagic shock, diabetic
CC   retinopathy, diabetes, venous insufficiency, unstable angina or trauma.
CC   They can be used in the veterinary treatment of a non-human subject.
CC   Protease inhibitors can be used to lower cell activation resulting from
CC   these diseases and deficiencies. The detection of an elevated level of
CC   hydrogen peroxide can be used to detect an inflammatory condition. An
CC   elevated level of hydrogen peroxide in plasma or whole blood and in the
CC   presence of superoxide dismutase (SOD) indicates leukocyte up regulation,
CC   e.g. indicative of the onset of an acute cardiovascular disorders, such
CC   as disease onset or ischemic complications. An elevated level of hydrogen
CC   peroxide in plasma or whole blood and a low level in the presence of SOD
CC   is indicative of a chronic or immune compromised condition e.g.
CC   hypertension or sepsis. AAY50201-Y50334 represent peptides used in the
CC   method of the invention
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 12
AAW92660
ID   AAW92660 standard; peptide; 5 AA.
XX
AC   AAW92660;
XX
DT   20-MAR-2003  (revised)
DT   30-APR-1999  (first entry)
XX
DE   Human tachykinin agonist beta-amyloid peptide fragment #6.
XX
KW   Tachykinin agonist; beta-amyloid; inhibition; neurotoxin; treatment;
KW   Alzheimer's disease; Down's syndrome; amyloidosis; human;
KW   hereditary cerebral haemorrhage; non-inherited congophilic angiopathy.
XX
OS   Homo sapiens.
XX
PN   US5876948-A.
XX
PD   02-MAR-1999.
XX
PF   29-JUL-1991;   91US-00737371.
XX
PR   27-JUL-1990;   90US-00559173.
XX
PA   (CHIL-) CHILDRENS MEDICAL CENT.
XX
PI   Yankner BA;
XX
DR   WPI; 1999-189630/16.
XX
PT   Screening for neurotoxin inhibitors - by testing compounds for their
PT   effect on beta-amyloid peptide neurotoxic effect on neuronal cells.
XX
PS   Disclosure; Col 13-14; 28pp; English.
XX
CC   This invention describes a method for screening compounds for inhibiting
CC   a neurotoxin. The method involves incubating tachykinin agonists with
CC   neuronal cells and a beta-amyloid peptide neurotoxin. The methods can be
CC   used for identifying compounds for treating diseases characterised by an
CC   undesirable build up of beta-amyloid protein, e.g. Alzheimer's disease,
CC   Down's syndrome, and the syndromes of hereditary cerebral haemorrhage
CC   with amyloidosis and non-inherited congophilic angiopathy with cerebral
CC   haemorrhage. AAW92655-W92731 are tachykinin agonists derived from human
CC   beta-amyloid peptide fragments. (Updated on 20-MAR-2003 to correct PF
CC   field.)
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 13
AAB23025
ID   AAB23025 standard; peptide; 5 AA.
XX
AC   AAB23025;
XX
DT   16-JAN-2001  (first entry)
XX
DE   Human/rat tachykinin Substance P C-terminal pentapeptide.
XX
KW   Substance P; tachykinin; human; rat; magnesium binding defect;
KW   sodium sensitive essential hypertension; insulin resistance;
KW   type 2 diabetes; antibody; immunoassay; quantification.
XX
OS   Homo sapiens.
OS   Rattus sp.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   5
FT                   /note= "C-terminal amide"
XX
PN   WO200054053-A1.
XX
PD   14-SEP-2000.
XX
PF   09-MAR-2000; 2000WO-US003707.
XX
PR   10-MAR-1999;   99US-00265690.
XX
PA   (WELL/) WELLS I C.
XX
PI   Wells IC;
XX
DR   WPI; 2000-587457/55.
XX
PT   Detecting magnesium binding defects associated with abnormal
PT   physiological states such as sodium-sensitive essential hypertension and
PT   type 2 insulin-resistant diabetes mellitus, comprises measuring a
PT   specific pentapeptide in blood.
XX
PS   Disclosure; Page 5; 21pp; English.
XX
CC   The inevntion relates to a method for detecting magnesium binding
CC   defects. The method comprises quantitating a tachykinin C-terminal
CC   pentapeptide (e.g., AAB23025) and its degradation products (e.g.,
CC   AAB23026) in blood using an antibody specific for the generalised
CC   mammalian tachykinin C-terminal pentapeptide Phe-(Phe/Val)-Gly-Leu-Met-
CC   NH2 (AAB23028). The method is useful for detecting cellular magnesium
CC   binding defects which are associated with abnormal physiological states
CC   such as sodium-sensitive essential hypertension and type 2 diabetes
CC   mellitus. The present sequence represents the C-terminal 5 amino acids of
CC   the tachykinin Substance P (AAB23027) from human and rat, which may be
CC   assayed according to the method of the invention
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 3;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 14
AAY67576
ID   AAY67576 standard; peptide; 5 AA.
XX
AC   AAY67576;
XX
DT   19-MAY-2000  (first entry)
XX
DE   P antagonist peptide #4.
XX
KW   Pharmaceutical; veterinary; gonadotropin-releasing hormone; GnRH;
KW   pore-forming agent; lecithin; stearin; P antagonist.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   5
FT                   /note= "C-terminal amide"
XX
PN   WO200004897-A1.
XX
PD   03-FEB-2000.
XX
PF   20-JUL-1999;   99WO-AU000585.
XX
PR   20-JUL-1998;   98AU-00004730.
PR   20-JUL-1998;   98AU-00004731.
PR   13-MAY-1999;   99AU-00000324.
XX
PA   (PEPT-) PEPTECH LTD.
XX
PI   Trigg TE,  Walsh JD,  Rathjen DA;
XX
DR   WPI; 2000-182528/16.
XX
PT   Bioimplant formulation for sustained delivery of an active agent over 7
PT   days to 2 years, comprises active agent, pore-forming agent and stearin.
XX
PS   Claim 20; Page 21; 37pp; English.
XX
CC   The invention provides a pharmaceutical and/or veterinary formulation
CC   that comprises 2 -30% of active agents which include a gonadotropin-
CC   releasing hormone (GnRH) agonist, 0.5 - 20% of a pore-forming agent which
CC   is not lecithin, and the remainder stearin. The formulation is useful as
CC   a sustained release implant which can deliver the active agent for a
CC   period of 7 days to 2 years. Sequences AAY67573-578 represent P
CC   antagonist peptides used in the composition
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 3;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 15
AAB91428
ID   AAB91428 standard; peptide; 5 AA.
XX
AC   AAB91428;
XX
DT   22-JUN-2001  (first entry)
XX
DE   Tachykinins peptide SEQ ID NO:604.
XX
KW   Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW   blood component; modification; succinimidyl; maleimido group; amino;
KW   hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
```

PN WO200069900-A2.
XX
PD 23-NOV-2000.
XX
PF 17-MAY-2000; 2000WO-US013576.
XX
PR 17-MAY-1999; 99US-0134406P.
PR 10-SEP-1999; 99US-0153406P.
PR 15-OCT-1999; 99US-0159783P.
XX
PA (CONJ-) CONJUCHEM INC.
XX
PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;
XX
DR WPI; 2001-112059/12.
XX
PT Modifying and attaching therapeutic peptides to albumin prevents
PT peptidase degradation, useful for increasing length of in vivo activity.
XX
PS Disclosure; Page 397; 733pp; English.
XX
CC The present invention describes a modified therapeutic peptide (I)
CC comprising a therapeutically active amino acid region (III) and a
CC reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
CC a less therapeutically active amino acid region (IV), which covalently
CC bonds with amino/hydroxyl/thiol groups on blood components to form a
CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC factors and neurotransmitters, to protect them from peptidase activity in
CC vivo for the treatment of various disorders. Endogenous therapeutic
CC peptides are not suitable as drug candidates as they require frequent
CC administration due to rapid degradation by peptidases in the body.
CC Modifying and attaching therapeutic peptides to albumin prevents or
CC reduces the action of peptidases to increase length of activity (half
CC life) and specificity as bonding to large molecules decreases
CC intracellular uptake and interference with physiological processes.
CC AAB90829 to AAB92441 represent peptides which can be used in the
CC exemplification of the present invention
XX
SQ Sequence 5 AA;

Query Match 100.0%; Score 27; DB 4; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FFGLM 5
|||||
Db 1 FFGLM 5

RESULT 16
ABB10088
ID ABB10088 standard; peptide; 5 AA.
XX
AC ABB10088;
XX
DT 26-JUL-2002 (first entry)
XX
DE Substance P analog used in wound healing treatment#11.
XX
KW Wound healing; insulin-like growth factor-I; tear; abrasion; skin ulcer;
KW surgical incision; burn.
XX
OS Unidentified.
XX
PN WO200213853-A1.
XX
PD 21-FEB-2002.
XX
PF 10-AUG-2001; 2001WO-JP006933.
XX
PR 10-AUG-2000; 2000JP-00242489.
PR 28-NOV-2000; 2000JP-00361388.
XX
PA (SANT) SANTEN PHARM CO LTD.
PA (NISH/) NISHIDA T.
XX
PI Nishida T, Nakata K, Nakamura M;
XX
DR WPI; 2002-269153/31.
XX
PT Skin wound healing promoters or skin epidermal extension promoters
PT containing substance P analogs and insulin-like growth factor-I for
PT treating wounds like tear, abrasion, surgical incision, skin ulcers or
PT burns.
XX
PS Disclosure; Page 4; 20pp; Japanese.
XX
CC The invention relates to skin wound healing promoters, containing
CC substance P analogs or their pharmaceutically-acceptable salts, and
CC insulin-like growth factor-I as the active ingredient. The promoters are
CC for treating wounds like tears, abrasions, surgical incisions, or skin
CC ulcers and burns. The current sequence represents a substance P analog
CC for use in wound healing treatment
XX
SQ Sequence 5 AA;

Query Match 100.0%; Score 27; DB 5; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FFGLM 5
|||||
Db 1 FFGLM 5

RESULT 17
AAU77845
ID AAU77845 standard; peptide; 5 AA.
XX
AC AAU77845;
XX
DT 05-JUN-2002 (first entry)
XX
DE Tachykinin N -terminal pentapeptide.
XX
KW Tachykinin; substance P; hypertension; hypotensive; antidiabetic;
KW gynaecological; salt-insensitive hypertension; magnesium binding;
KW insulin resistance; type 2 diabetes mellitus; pre-eclampsia; eclampsia.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Modified-site 5. .5
FT /note= "C terminal-amide"
XX
PN WO200211714-A2.
XX
PD 14-FEB-2002.
XX
PF 09-AUG-2001; 2001WO-US024909.
XX
PR 09-AUG-2000; 2000US-00635266.
XX
PA (MAGN-) MAGNESIUM DIAGNOSTICS INC.
XX
PI Wells IC;
XX
DR WPI; 2002-280663/32.
XX
PT New monopeptides derived from butadienes, ethylenes and propanes are
PT magnesium binding defect antagonists, useful in the treatment of e.g.
PT hypertension, insulin resistance of type 2 diabetes mellitus and
PT eclampsia.
XX
PS Disclosure; Page 2; 38pp; English.

```
XX
CC   This invention relates to novel therapeutic compounds and methods used
CC   for treating mammals with disorders such as salt-insensitive
CC   hypertension. The monopeptide compounds of the invention are derived from
CC   butadienes, ethylenes and propanes. The compounds of the invention are
CC   used to correct a defect in magnesium binding within the plasma membranes
CC   of somatic cells which results in a decrease in the intracellular
CC   concentration of magnesium ions. These compounds may be used in the
CC   treatment of a mammal affected with magnesium binding defect, salt-
CC   sensitive (particularly hypertension), insulin resistance of type 2
CC   diabetes mellitus and pre-eclampsia/eclampsia. The compounds of the
CC   invention have an advantage over prior art compounds in that these
CC   compounds are biologically stable. The present sequence represents the a
CC   pentapeptide from the C terminal sequence of tachykinin known as
CC   substance P, this peptide is sufficient to correct the magnesium binding
CC   defect responsible for causing hypertension
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 5;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 18
ADE94203
ID   ADE94203 standard; peptide; 5 AA.
XX
AC   ADE94203;
XX
DT   12-FEB-2004  (first entry)
XX
DE   High activity minimal IGF-1-derived peptide fragment #15.
XX
KW   ophthalmological; dermatological; vulnerary; insulin growth factor 1;
KW   IGF-1; ophthalmology; dermatology; keratic injury; wound healing; skin;
KW   corneal ulcer; exofoliation of corneal epithelium; keratitis; dry eye;
KW   scratch; surgical cutting; skin ulcer; burns.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 5
FT                   /note= "amidated C-terminus"
XX
PN   WO2003048192-A1.
XX
PD   12-JUN-2003.
XX
PF   03-DEC-2002; 2002WO-JP012632.
XX
PR   03-DEC-2001; 2001JP-00368103.
XX
PA   (SANT ) SANTEN PHARM CO LTD.
PA   (NISH/) NISHIDA T.
XX
PI   Nishida T,  Inui M,  Nakamura M;
XX
DR   WPI; 2003-505280/47.
XX
PT   Novel peptides based on minimum activity expression units of insulin-like
PT   growth factor-1, applicable in remedies in ophthalmology and dermatology
PT   for treating keratic injury and promoting wound healing in skin.
XX
PS   Disclosure; Page 7; 25pp; Japanese.
XX
CC   The invention relates to the determination of the smallest peptide
CC   fragment of insulin growth factor 1 (IGF-1) with the highest activity for
CC   use in ophthalmology and dermatology. The peptides are applicable in
CC   remedies in ophthalmology and dermatology for treating keratic injury and
CC   promoting wound healing in the skin. The keratic injury is particularly
CC   corneal ulcer, exofoliation of corneal epithelium, keratitis or dry eye.
CC   The skin wound can be scratches, surgical cutting, skin ulcer, or burns.
CC   This sequence represents one of the peptides of the invention with IGF-1
CC   activity.
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 7;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 19
ADF92530
ID   ADF92530 standard; peptide; 5 AA.
XX
AC   ADF92530;
XX
DT   26-FEB-2004  (first entry)
XX
DE   Substance P receptor agonist #3.
XX
KW   analgesic; Mu-opioid receptor agonist; substance P receptor agonist;
KW   chimeric hybrid; cyclic alkaloid moiety; mu opioid receptor; substance P;
KW   opioid tolerance; morphine; substance P; SP; neuropeptide;
KW   blood-brain barrier; morphine 6-glucuronide; pain; drug abuse; analgesia;
KW   tolerance development; dependence formation;
KW   substance P receptor agonist.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   5
FT                   /note= "C-terminal amide"
XX
PN   US2003202981-A1.
XX
PD   30-OCT-2003.
XX
PF   26-APR-2002; 2002US-00134187.
XX
PR   26-APR-2002; 2002US-00134187.
XX
PA   (KREA/) KREAM R M.
XX
PI   Kream RM;
XX
DR   WPI; 2003-900618/82.
XX
PT   Chimeric hybrid molecule useful for treating pain comprising cyclic
PT   alkaloid moiety which binds as agonist to mammalian to human mu opioid
PT   receptor and peptide moiety which binds as agonist to mammalian substance
PT   P.
XX
PS   Claim 7; Page 7; 11pp; English.
XX
CC   The invention describes a chimeric hybrid molecule (I) of a cyclic
CC   alkaloid moiety which binds as an agonist to a mammalian/human mu opioid
CC   receptor and a peptide moiety which binds as an agonist to a
CC   mammalian/human substance P. (I) is useful for inhibiting development of
CC   opioid tolerance by chemically combining a pharmacologically active form
CC   of substance P with morphine in (I). (I) is useful for transporting an
CC   active form of SP or neuropeptide across the blood-brain barrier into the
CC   central nervous system using the active metabolite of morphine, morphine
CC   6-glucuronide, contained in (I). (I) is useful for targeted drug delivery
CC   of reciprocally regulating analgesic chemicals across the blood-brain
CC   barrier into the central nervous system using (I). (I) is useful for
```

```
CC   treating pain in a mammal and for treating drug abuse in a mammal by
CC   administering (I) in substitution for the drug on which the mammal became
CC   dependent and/or tolerant and thereafter adjusting the dosage as
CC   tolerance and/or dependence is modulated. (I) induces analgesia in a
CC   mammal with tolerance development markedly less than that of morphine.
CC   (I) efficiently modulates the activation of the MOR and to reduce or
CC   eliminate tolerance development and dependence formation. This is the
CC   amino acid sequence of a peptide that functions as a substance P receptor
CC   agonist.
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 7;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 20
ADN95078
ID   ADN95078 standard; peptide; 5 AA.
XX
AC   ADN95078;
XX
DT   26-AUG-2004  (first entry)
XX
DE   Mammalian substance P peptide (amino acids 7-11).
XX
KW   Opioid tolerance; substance P; morphine; cyclic alkaloid; mammalian;
KW   mu opioid receptor; acute pain; chronic pain; drug abuse;
KW   opioid analgesia; analgesic; antiaddictive.
XX
OS   Mammalia.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   5
FT                   /note= "C-terminal amide"
XX
PN   US2004106636-A1.
XX
PD   03-JUN-2004.
XX
PF   17-OCT-2003; 2003US-00688741.
XX
PR   26-APR-2002; 2002US-00134187.
XX
PA   (KREA/) KREAM R M.
XX
PI   Kream RM;
XX
DR   WPI; 2004-419489/39.
XX
PT   Inhibiting development of opioids tolerance involves use of chimeric
PT   hybrid molecules containing an opioid moiety of chemically modified
PT   morphine.
XX
PS   Disclosure; SEQ ID NO 3; 10pp; English.
XX
CC   The present invention relates to a method of inhibiting the development
CC   of opioid tolerance. The method involves administering a chemical
CC   combination of an active form of substance P with morphine in a new
CC   chimeric hybrid molecule. The morphine is chemically modified and
CC   covalently linked through its 6'OH group, and comprises a cyclic alkaloid
CC   moiety which binds as an agonist to a mammalian or human mu opioid
CC   receptor. An active C-mu terminal substance P fragment, chemically
CC   modified and covalently linked through its free NH2 group, comprises a
CC   peptide moiety, which binds moiety which binds as an agonist to a
CC   mammalian/human substance P receptor. A compact, but flexible, molecular
CC   hinge covalently cross links morphine through its 6'OH group to the free
CC   NH2 group of the substance P receptor agonist moiety, so as to allow both
CC   the mu opioid receptor and the substance P receptor agonist moieties to
CC   activate their respective receptors simultaneously and independently. The
CC   chimeric hybrid molecules are administered intrathecally, systemically,
CC   orally, intradermally, parenterally (e.g. subcutaneously, intravenously),
CC   through injection, transdermally, (e.g. topically), transmucosally or
CC   rectally. The method is useful for the treatment of acute and chronic
CC   pain, and drug abuse. The molecules show reduced side effects. The
CC   molecules provide opioid analgesia in living subjects while inhibiting
CC   tolerance development and dependence formation. The present sequence
CC   representing a peptide from mammalian substance P is used in the method
CC   of the invention.
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 27;  DB 8;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 21
ADR43771
ID   ADR43771 standard; peptide; 5 AA.
XX
AC   ADR43771;
XX
DT   18-NOV-2004  (first entry)
XX
DE   Human magnesium binding defect (MgBD) peptide mimetic #1.
XX
KW   Magnesium binding defect; MgBD; MgBD binding defect peptide mimetic;
KW   physiological disorder; preeclampsia; pregnancy;
KW   salt-sensitive essential hypertension; type 2 diabetes mellitus; human.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   5
FT                   /label= OTHER
FT                   /note= "OTHER= C-terminal amide"
XX
PN   US2004171093-A1.
XX
PD   02-SEP-2004.
XX
PF   22-MAR-2004; 2004US-00805881.
XX
PR   10-MAR-1999;   99US-00265690.
PR   09-AUG-2000; 2000US-00635266.
PR   24-JAN-2002; 2002US-00053669.
PR   29-AUG-2002; 2002US-00230133.
PR   28-OCT-2003; 2003US-00695536.
XX
PA   (WELL/) WELLS I C.
XX
PI   Wells IC;
XX
DR   WPI; 2004-625105/60.
XX
PT   Assessing predisposition to physiological disorder associated with
PT   magnesium binding defect in individual, by measuring level of amidated
PT   peptides associated with magnesium binding defect in sample and comparing
PT   peptide level to standard.
XX
PS   Claim 1; SEQ ID NO 1; 21pp; English.
XX
CC   The invention relates to a method of assessing a predisposition to a
CC   physiological disorder associated with a magnesium binding defect in an
CC   individual, involving measuring the level of amidated peptides associated
CC   with the magnesium binding defect in a sample of body fluid of the
```

CC individual and comparing the level of peptide to a standard, where a
CC significantly lower level of the peptide is indicative of a
CC predisposition of the individual to the physiological disorder. The
CC invention also relates to a method of monitoring progress in treatment of
CC a physiological disorder associated with a magnesium binding defect in an
CC individual, involving comparing the level of peptide to the level of
CC peptide after treatment, where a significant increase in the level of the
CC peptide is indicative of the progress of treatment of the individual, a
CC monoclonal antibody that specifically binds to a peptide or its peptide
CC mimetic, a prognosis reagent for determining the presence of a magnesium
CC binding defect, generating a deficit of plasma membrane tightly bound
CC magnesium ion in mammalian somatic cells involving obtaining a sample of
CC body fluid comprising somatic cells, collecting the somatic cells from
CC the body fluid by centrifugation, resuspending the somatic cells in a
CC cell stabilising buffer, removing a sample of the suspended somatic
CC cells, measuring the level of tightly bound magnesium ion in the sample
CC of the somatic cells and repeating the removing and measuring steps at
CC subsequent times until the level of tightly bound magnesium is
CC significantly reduced and the somatic cells remain intact, a method of
CC identifying substances which promote binding of tightly bound magnesium
CC ion to a plasma membrane of mammalian somatic cells involving suspending
CC mammalian somatic cells having a deficit of plasma membrane tightly bound
CC magnesium in a physiological medium including magnesium ion, adding a
CC substance to be tested to the suspension and measuring the level of
CC tightly bound magnesium ion in the plasma membrane of the somatic cells
CC where a significant increase in the level of plasma membrane tightly
CC bound magnesium after addition of the substance to be tested is
CC indicative of promotion of binding by the substance, and a method for
CC ameliorating or correcting a magnesium binding defect in an individual
CC involving administering to the individual a substance which promotes
CC binding of tightly bound magnesium ion to the plasma membrane of
CC mammalian somatic cells. The methods are useful for assessing a
CC predisposition to a physiological disorder associated with a magnesium
CC binding defect in an individual, where the disorder is a predisposition
CC to preeclampsia during pregnancy, salt-sensitive essential hypertension
CC or type 2 diabetes mellitus associated with the magnesium binding defect.
CC The method is also useful for ameliorating or correcting a magnesium
CC binding defect (MgBD) in an individual. This sequence represents a human
CC MgBD mimetic peptide of the invention.
XX
SQ Sequence 5 AA;

Query Match 100.0%; Score 27; DB 8; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 FFGLM 5
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Db          1 FFGLM 5
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Search completed: March 23, 2005, 15:32:58
Job time : 73 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 23, 2005, 14:50:07 ; Search time 92 Seconds
(without alignments)
17.995 Million cell updates/sec

Title: SEQ1
Perfect score: 27
Sequence: 1 ffglm 5

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1407402 seqs, 331100923 residues

Total number of hits satisfying chosen parameters: 21937

Minimum DB seq length: 0
Maximum DB seq length: 5

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*
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20: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	27	100.0	5	9	US-09-265-690C-1	Sequence 1, Appli
2	27	100.0	5	14	US-10-053-669-1	Sequence 1, Appli
3	27	100.0	5	15	US-10-134-187-3	Sequence 3, Appli
4	27	100.0	5	16	US-10-688-741-3	Sequence 3, Appli
5	27	100.0	5	16	US-10-805-881-1	Sequence 1, Appli
6	27	100.0	5	17	US-10-497-628-15	Sequence 15, Appl
7	24	88.9	5	17	US-10-497-628-16	Sequence 16, Appl
8	22	81.5	4	17	US-10-821-240A-270	Sequence 270, App
9	21	77.8	4	9	US-09-265-690C-2	Sequence 2, Appli
10	21	77.8	4	14	US-10-230-133-3	Sequence 3, Appli
11	21	77.8	4	14	US-10-053-669-2	Sequence 2, Appli
12	21	77.8	4	16	US-10-695-536-3	Sequence 3, Appli
13	21	77.8	4	16	US-10-805-881-2	Sequence 2, Appli
14	21	77.8	4	17	US-10-497-628-2	Sequence 2, Appli
15	21	77.8	5	16	US-10-346-737A-30	Sequence 30, Appl
16	21	77.8	5	17	US-10-497-628-17	Sequence 17, Appl
17	20	74.1	5	9	US-09-265-690C-4	Sequence 4, Appli
18	20	74.1	5	14	US-10-230-133-4	Sequence 4, Appli
19	20	74.1	5	14	US-10-053-669-4	Sequence 4, Appli
20	20	74.1	5	16	US-10-695-536-4	Sequence 4, Appli
21	20	74.1	5	16	US-10-805-881-4	Sequence 4, Appli
22	19	70.4	5	16	US-10-346-737A-22	Sequence 22, Appl
23	18	66.7	4	8	US-08-484-409-14	Sequence 14, Appl
24	18	66.7	4	14	US-10-155-170-4	Sequence 4, Appli
25	18	66.7	4	14	US-10-351-641-826	Sequence 826, App
26	18	66.7	4	16	US-10-822-661-4	Sequence 4, Appli
27	18	66.7	4	17	US-10-821-240A-298	Sequence 298, App
28	18	66.7	5	11	US-09-920-306-38	Sequence 38, Appl
29	17	63.0	5	14	US-10-168-789A-32	Sequence 32, Appl
30	17	63.0	5	17	US-10-783-311-299	Sequence 299, App
31	16	59.3	4	9	US-09-879-442A-9	Sequence 9, Appli
32	16	59.3	5	10	US-09-886-135-2	Sequence 2, Appli
33	16	59.3	5	16	US-10-620-052A-45	Sequence 45, Appl
34	16	59.3	5	16	US-10-337-105-3	Sequence 3, Appli
35	16	59.3	5	16	US-10-337-105-4	Sequence 4, Appli
36	16	59.3	5	17	US-10-891-122-2	Sequence 2, Appli
37	15	55.6	3	14	US-10-230-133-2	Sequence 2, Appli
38	15	55.6	3	16	US-10-695-536-2	Sequence 2, Appli
39	15	55.6	4	17	US-10-823-964A-11	Sequence 11, Appl
40	15	55.6	5	11	US-09-920-306-40	Sequence 40, Appl
41	15	55.6	5	14	US-10-301-499A-25	Sequence 25, Appl
42	15	55.6	5	14	US-10-168-789A-39	Sequence 39, Appl
43	15	55.6	5	14	US-10-194-441A-85	Sequence 85, Appl
44	15	55.6	5	15	US-10-311-366-9	Sequence 9, Appli
45	15	55.6	5	16	US-10-128-520-360	Sequence 360, App

ALIGNMENTS

RESULT 1
US-09-265-690C-1
; Sequence 1, Application US/09265690C
; Publication No. US20010051345A1
; GENERAL INFORMATION:
; APPLICANT: Wells, Ibert
; TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound Ma
; TITLE OF INVENTION: for Disease Diagnosis
; FILE REFERENCE: 1427001
; CURRENT APPLICATION NUMBER: US/09/265,690C
; CURRENT FILING DATE: 1999-03-10
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1
; LENGTH: 5
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (5)..(5)
; OTHER INFORMATION: AMIDATION
US-09-265-690C-1

Query Match 100.0%; Score 27; DB 9; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.3e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FFGLM 5
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Db 1 FFGLM 5

RESULT 2
US-10-053-669-1
; Sequence 1, Application US/10053669
; Publication No. US20030077658A1

; GENERAL INFORMATION:
; APPLICANT: Wells, Ibert
; TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound Ma
; TITLE OF INVENTION: for Disease Diagnosis
; FILE REFERENCE: N1427-005
; CURRENT APPLICATION NUMBER: US/10/053,669
; CURRENT FILING DATE: 2002-01-24
; PRIOR APPLICATION NUMBER: 09/265,690
; PRIOR FILING DATE: 1999-03-10
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1
; LENGTH: 5
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (5)..(5)
; OTHER INFORMATION: AMIDATION
US-10-053-669-1

Query Match 100.0%; Score 27; DB 14; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.3e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FFGLM 5
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Db 1 FFGLM 5

RESULT 3
US-10-134-187-3
; Sequence 3, Application US/10134187
; Publication No. US20030202981A1
; GENERAL INFORMATION:
; APPLICANT: Kream, Richard M.
; APPLICANT: Kream, Richard M.
; APPLICANT: Kream, Richard M.
; TITLE OF INVENTION: Chimeric Hybrid Analgesics
; FILE REFERENCE: Kream
; CURRENT APPLICATION NUMBER: US/10/134,187
; CURRENT FILING DATE: 2002-04-26
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 5
; TYPE: PRT
; ORGANISM: mammalian
US-10-134-187-3

Query Match 100.0%; Score 27; DB 15; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.3e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 1 FFGLM 5

RESULT 4
US-10-688-741-3
; Sequence 3, Application US/10688741
; Publication No. US20040106636A1
; GENERAL INFORMATION:
; APPLICANT: Kream, Richard M.
; APPLICANT: Kream, Richard M.
; APPLICANT: Kream, Richard M.
; TITLE OF INVENTION: Method Of Inhibiting Opioid Tolerance Development With Chimeric H
; TITLE OF INVENTION: Analgesics
; FILE REFERENCE: Kream
; CURRENT APPLICATION NUMBER: US/10/688,741
; CURRENT FILING DATE: 2003-10-17
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 5
; TYPE: PRT
; ORGANISM: mammalian
US-10-688-741-3

Query Match 100.0%; Score 27; DB 16; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.3e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FFGLM 5
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Db 1 FFGLM 5

RESULT 5
US-10-805-881-1
; Sequence 1, Application US/10805881
; Publication No. US20040171093A1
; GENERAL INFORMATION:
; APPLICANT: Wells, Ibert C.
; TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound
; TITLE OF INVENTION: Magnesium for Disease Diagnosis
; FILE REFERENCE: 800812-0005
; CURRENT APPLICATION NUMBER: US/10/805,881
; CURRENT FILING DATE: 2004-03-22
; PRIOR APPLICATION NUMBER: US 10/053,669
; PRIOR FILING DATE: 2002-01-24
; PRIOR APPLICATION NUMBER: US 10/695,536
; PRIOR FILING DATE: 2003-10-28
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1
; LENGTH: 5
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (5)..(5)
; OTHER INFORMATION: AMIDATION
US-10-805-881-1

Query Match 100.0%; Score 27; DB 16; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.3e+06;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FFGLM 5
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Db 1 FFGLM 5

RESULT 6
US-10-497-628-15
; Sequence 15, Application US/10497628
; Publication No. US20050009752A1
; GENERAL INFORMATION:
; APPLICANT: Teruo Nishida
; APPLICANT: Makoto Inui
; APPLICANT: Masatsugu Nakamura
; TITLE OF INVENTION: NOVEL PEPTIDE AND PHARMACEUTICAL USE OF THE SAME
; FILE REFERENCE: 04355/HG
; CURRENT APPLICATION NUMBER: US/10/497,628
; CURRENT FILING DATE: 2004-06-03
; PRIOR APPLICATION NUMBER: JP 2001-368103
; PRIOR FILING DATE: 2001-12-01
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 15
; LENGTH: 5
; TYPE: PRT
; ORGANISM: Human
US-10-497-628-15

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Qy          1 FFGLM 5
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Db          1 FFGLM 5


RESULT 7
US-10-497-628-16
; Sequence 16, Application US/10497628
; Publication No. US20050009752A1
; GENERAL INFORMATION:
;  APPLICANT: Teruo Nishida
;  APPLICANT:  Makoto Inui
;  APPLICANT:  Masatsugu Nakamura
;  TITLE OF INVENTION: NOVEL PEPTIDE AND PHARMACEUTICAL USE OF THE SAME
;  FILE REFERENCE: 04355/HG
;  CURRENT APPLICATION NUMBER: US/10/497,628
;  CURRENT FILING DATE:  2004-06-03
;  PRIOR APPLICATION NUMBER: JP 2001-368103
;  PRIOR FILING DATE: 2001-12-01
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 16
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Human
US-10-497-628-16

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Qy          1 FFGLM 5
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Db          1 YFGLM 5


RESULT 8
US-10-821-240A-270
; Sequence 270, Application US/10821240A
; Publication No. US20050037430A1
; GENERAL INFORMATION:
;  APPLICANT: Khan, Nisar A.
;  APPLICANT:  Benner, Robert
;  TITLE OF INVENTION: Gene regulator
;  FILE REFERENCE: 2183-5223US
;  CURRENT APPLICATION NUMBER: US/10/821,240A
;  CURRENT FILING DATE:  2004-04-08
;  PRIOR APPLICATION NUMBER: 10/028,075
;  PRIOR FILING DATE: 2001-12-21
;  PRIOR APPLICATION NUMBER: EP 01203748.7
;  PRIOR FILING DATE: 2001-10-04
;  NUMBER OF SEQ ID NOS: 312
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 270
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: derivative peptide based on m
;   OTHER INFORMATION: metalloproteinase-2
US-10-821-240A-270

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Qy          1 FFGL 4
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RESULT 9
US-09-265-690C-2
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; Publication No. US20010051345A1
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound M
;  TITLE OF INVENTION:  for Disease Diagnosis
;  FILE REFERENCE: 1427001
;  CURRENT APPLICATION NUMBER: US/09/265,690C
;  CURRENT FILING DATE:  1999-03-10
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (4)..(4)
;   OTHER INFORMATION: AMIDATION
US-09-265-690C-2

  Query Match             77.8%;  Score 21;  DB 9;  Length 4;
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Qy          2 FGLM 5
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Db          1 FGLM 4


RESULT 10
US-10-230-133-3
; Sequence 3, Application US/10230133
; Publication No. US20030040625A1
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Antagonists of the magnesium binding defect as therapy agents an
;  TITLE OF INVENTION:  methods for treatment of abnormal physiological states
;  FILE REFERENCE: 2892-106
;  CURRENT APPLICATION NUMBER: US/10/230,133
;  CURRENT FILING DATE:  2002-08-29
;  PRIOR APPLICATION NUMBER: 09/635,266
;  PRIOR FILING DATE: 2000-08-09
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (4)..(4)
;   OTHER INFORMATION: AMIDATION
US-10-230-133-3

  Query Match             77.8%;  Score 21;  DB 14;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FGLM 5
              ||||
Db          1 FGLM 4


RESULT 11
US-10-053-669-2
; Sequence 2, Application US/10053669
; Publication No. US20030077658A1
```

```
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound Ma
;  TITLE OF INVENTION:  for Disease Diagnosis
;  FILE REFERENCE: N1427-005
;  CURRENT APPLICATION NUMBER: US/10/053,669
;  CURRENT FILING DATE:  2002-01-24
;  PRIOR APPLICATION NUMBER: 09/265,690
;  PRIOR FILING DATE: 1999-03-10
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (4)..(4)
;   OTHER INFORMATION: AMIDATION
US-10-053-669-2

  Query Match             77.8%;  Score 21;  DB 14;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FGLM 5
              ||||
Db          1 FGLM 4


RESULT 12
US-10-695-536-3
; Sequence 3, Application US/10695536
; Publication No. US20040110692A1
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert  Clifton
;  TITLE OF INVENTION: Antagonists of the Magnesium Binding Defect as Therapeutic Agents
;  TITLE OF INVENTION:  and Methods for Treatment of Abnormal Physiological States
;  FILE REFERENCE: 800812-0008
;  CURRENT APPLICATION NUMBER: US/10/695,536
;  CURRENT FILING DATE:  2003-10-28
;  PRIOR APPLICATION NUMBER: US 10/230,133
;  PRIOR FILING DATE: 2002-08-29
;  PRIOR APPLICATION NUMBER: US 09/635,266
;  PRIOR FILING DATE: 2000-08-09
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 3
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (4)..(4)
;   OTHER INFORMATION: AMIDATION
US-10-695-536-3

  Query Match             77.8%;  Score 21;  DB 16;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FGLM 5
              ||||
Db          1 FGLM 4


RESULT 13
US-10-805-881-2
; Sequence 2, Application US/10805881
; Publication No. US20040171093A1
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert C.
;  TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound
;  TITLE OF INVENTION:  Magnesium for Disease Diagnosis
;  FILE REFERENCE: 800812-0005
;  CURRENT APPLICATION NUMBER: US/10/805,881
;  CURRENT FILING DATE:  2004-03-22
;  PRIOR APPLICATION NUMBER: US 10/053,669
;  PRIOR FILING DATE: 2002-01-24
;  PRIOR APPLICATION NUMBER: US 10/695,536
;  PRIOR FILING DATE: 2003-10-28
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (4)..(4)
;   OTHER INFORMATION: AMIDATION
US-10-805-881-2

  Query Match             77.8%;  Score 21;  DB 16;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FGLM 5
              ||||
Db          1 FGLM 4


RESULT 14
US-10-497-628-2
; Sequence 2, Application US/10497628
; Publication No. US20050009752A1
; GENERAL INFORMATION:
;  APPLICANT: Teruo Nishida
;  APPLICANT:  Makoto Inui
;  APPLICANT:  Masatsugu Nakamura
;  TITLE OF INVENTION: NOVEL PEPTIDE AND PHARMACEUTICAL USE OF THE SAME
;  FILE REFERENCE: 04355/HG
;  CURRENT APPLICATION NUMBER: US/10/497,628
;  CURRENT FILING DATE:  2004-06-03
;  PRIOR APPLICATION NUMBER: JP 2001-368103
;  PRIOR FILING DATE: 2001-12-01
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Human
US-10-497-628-2

  Query Match             77.8%;  Score 21;  DB 17;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FGLM 5
              ||||
Db          1 FGLM 4


RESULT 15
US-10-346-737A-30
; Sequence 30, Application US/10346737A
; Publication No. US20040142379A1
; GENERAL INFORMATION:
;  APPLICANT: St. Hilaire, Phaedria
;  TITLE OF INVENTION: AFFINITY FISHING FOR LIGANDS AND PROTEIN RECEPTORS
;  FILE REFERENCE: 11225.16US01
;  CURRENT APPLICATION NUMBER: US/10/346,737A
;  CURRENT FILING DATE:  2003-01-16
;  NUMBER OF SEQ ID NOS: 50
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 30
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;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Peptide
;   FEATURE:
;   NAME/KEY: MISC_FEATURE
;   LOCATION: (1)..(1)
;   OTHER INFORMATION: Xaa is T(Sa)
US-10-346-737A-30

  Query Match             77.8%;  Score 21;  DB 16;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FGLM 5
              ||||
Db          2 FGLM 5


Search completed: March 23, 2005, 15:07:05
Job time : 92 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 23, 2005, 14:37:21 ; Search time 30 Seconds
(without alignments)
12.442 Million cell updates/sec

Title: SEQ1
Perfect score: 27
Sequence: 1 ffglm 5

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 27945

Minimum DB seq length: 0
Maximum DB seq length: 5

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
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2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	27	100.0	5	1	US-07-934-553-2	Sequence 2, Appli
2	27	100.0	5	1	US-08-225-474-2	Sequence 2, Appli
3	27	100.0	5	2	US-07-737-371E-6	Sequence 6, Appli
4	27	100.0	5	3	US-09-265-690C-1	Sequence 1, Appli
5	24	88.9	5	2	US-07-737-371E-48	Sequence 48, Appl
6	22	81.5	5	2	US-07-737-371E-47	Sequence 47, Appl
7	22	81.5	5	2	US-07-737-371E-49	Sequence 49, Appl
8	21	77.8	4	1	US-08-441-591-63	Sequence 63, Appl
9	21	77.8	4	1	US-08-303-362A-63	Sequence 63, Appl
10	21	77.8	4	3	US-09-265-690C-2	Sequence 2, Appli
11	21	77.8	4	4	US-09-635-266-3	Sequence 3, Appli
12	21	77.8	4	4	US-10-230-133-3	Sequence 3, Appli
13	21	77.8	4	5	PCT-US95-05600-80	Sequence 80, Appl
14	21	77.8	5	2	US-08-070-301-6	Sequence 6, Appli
15	20	74.1	5	1	US-07-753-909B-3	Sequence 3, Appli
16	20	74.1	5	1	US-08-269-288-1	Sequence 1, Appli
17	20	74.1	5	1	US-08-391-910-1	Sequence 1, Appli
18	20	74.1	5	1	US-08-418-994-1	Sequence 1, Appli
19	20	74.1	5	1	US-08-391-814-1	Sequence 1, Appli
20	20	74.1	5	1	US-08-441-591-61	Sequence 61, Appl
21	20	74.1	5	1	US-08-303-362A-61	Sequence 61, Appl
22	20	74.1	5	1	US-08-462-415-1	Sequence 1, Appli
23	20	74.1	5	1	US-08-463-874-1	Sequence 1, Appli
24	20	74.1	5	1	US-08-444-135-1	Sequence 1, Appli
25	20	74.1	5	1	US-08-318-391-1	Sequence 1, Appli
26	20	74.1	5	3	US-08-257-966-1	Sequence 1, Appli
27	20	74.1	5	3	US-09-265-690C-4	Sequence 4, Appli
28	20	74.1	5	4	US-08-153-847-1	Sequence 1, Appli
29	20	74.1	5	4	US-09-635-266-4	Sequence 4, Appli
30	20	74.1	5	4	US-10-230-133-4	Sequence 4, Appli
31	20	74.1	5	5	PCT-US95-05600-78	Sequence 78, Appl
32	19	70.4	4	3	US-08-722-126A-20	Sequence 20, Appl
33	19	70.4	5	2	US-08-765-061-5	Sequence 5, Appli
34	18	66.7	4	1	US-07-822-924-7	Sequence 7, Appli
35	18	66.7	4	1	US-08-285-777-1	Sequence 1, Appli
36	18	66.7	4	1	US-08-127-904-11	Sequence 11, Appl
37	18	66.7	4	1	US-08-431-539-4	Sequence 4, Appli
38	18	66.7	4	2	US-09-060-455-16	Sequence 16, Appl
39	18	66.7	4	3	US-09-082-279B-826	Sequence 826, App
40	18	66.7	4	3	US-09-264-709A-12	Sequence 12, Appl
41	18	66.7	4	3	US-09-264-709A-18	Sequence 18, Appl
42	18	66.7	4	3	US-09-264-709A-19	Sequence 19, Appl
43	18	66.7	4	3	US-09-264-709A-23	Sequence 23, Appl
44	18	66.7	4	3	US-09-264-709A-24	Sequence 24, Appl
45	18	66.7	4	3	US-09-264-709A-34	Sequence 34, Appl

ALIGNMENTS

```
RESULT 1
US-07-934-553-2
; Sequence 2, Application US/07934553
; Patent No. 5314690
;  GENERAL INFORMATION:
;    APPLICANT:  PATTERSON, ROY
;    APPLICANT:  HARRIS, KATHLEEN E
;    TITLE OF INVENTION:  METHOD AND COMPOSITION FOR REDUCING IgE
;    TITLE OF INVENTION:  ANTIBODIES TO SPECIFIC ALLERGENS
;    NUMBER OF SEQUENCES:  5
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  TILTON, FALLON, LUNGMUS & CHESTNUT
;      STREET:  100 SOUTH WACKER DRIVE
;      CITY:  CHICAGO
;      STATE:  ILLINOIS
;      COUNTRY:  USA
;      ZIP:  60606-4002
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/934,553
;      FILING DATE:  19920821
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/705,071
;      FILING DATE:  24-MAY-1991
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  FENTRESS, SUSAN B
;      REGISTRATION NUMBER:  31,327
;      REFERENCE/DOCKET NUMBER:  NU-9033CIP
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  312/456-8000
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5 amino acids
;      TYPE:  AMINO ACID
;      STRANDEDNESS:  unknown
;      TOPOLOGY:  unknown
;    MOLECULE TYPE:  peptide
US-07-934-553-2

  Query Match           100.0%;  Score 27;  DB 1;  Length 5;
  Best Local Similarity  100.0%;  Pred. No. 4.1e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
```

```
Db          1 FFGLM 5


RESULT 2
US-08-225-474-2
; Sequence 2, Application US/08225474
; Patent No. 5560915
; GENERAL INFORMATION:
;   APPLICANT:  Patterson, Roy
;   APPLICANT:  Harris, Kathleen E.
;   TITLE OF INVENTION:  Method and Composition for Treating
;   TITLE OF INVENTION:  IgE Mediated Allergies
;   NUMBER OF SEQUENCES:  5
;   CORRESPONDENCE ADDRESS:
;     ADDRESSEE:  Tilton, Fallon, Lungmus & Chestnut
;     STREET:  100 S. Wacker Drive, Suite 960
;     CITY:  Chicago
;     STATE:  Illinois
;     COUNTRY:  USA
;     ZIP:  60606-4002
;   COMPUTER READABLE FORM:
;     MEDIUM TYPE:  Floppy disk
;     COMPUTER:  IBM PC compatible
;     OPERATING SYSTEM:  PC-DOS/MS-DOS
;     SOFTWARE:  PatentIn Release #1.0, Version #1.25
;   CURRENT APPLICATION DATA:
;     APPLICATION NUMBER:  US/08/225,474
;     FILING DATE:
;     CLASSIFICATION:  514
;   PRIOR APPLICATION DATA:
;     APPLICATION NUMBER:  US 07/934,553
;     FILING DATE:  21-AUG-1992
;   PRIOR APPLICATION DATA:
;     APPLICATION NUMBER:  US 07/705,071
;     FILING DATE:  24-MAY-1991
;   ATTORNEY/AGENT INFORMATION:
;     NAME:  Tilton, Timothy L.
;     REGISTRATION NUMBER:  16,926
;     REFERENCE/DOCKET NUMBER:  NU 9033-CIP2
;   TELECOMMUNICATION INFORMATION:
;     TELEPHONE:  (312)-456-8000
;     TELEFAX:  (312)-456-7776
; INFORMATION FOR SEQ ID NO:  2:
;   SEQUENCE CHARACTERISTICS:
;     LENGTH:  5 amino acids
;     TYPE:  amino acid
;     STRANDEDNESS:  unknown
;     TOPOLOGY:  unknown
;   MOLECULE TYPE:  peptide
US-08-225-474-2

  Query Match             100.0%;  Score 27;  DB 1;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 3
US-07-737-371E-6
; Sequence 6, Application US/07737371E
; Patent No. 5876948
; GENERAL INFORMATION:
;   APPLICANT:  Yankner, Bruce A.
;   TITLE OF INVENTION:  SCREENING METHODS TO IDENTIFY
;   TITLE OF INVENTION:  NEUROTOXIN INHIBITORS (AS AMENDED)
;   NUMBER OF SEQUENCES:  77
;   CORRESPONDENCE ADDRESS:
;     ADDRESSEE:  Fish & Richardson, P.C.
;     STREET:  225 Franklin Street
;     CITY:  Boston
;     STATE:  MA
;     COUNTRY:  US
;     ZIP:  02110-2804
;   COMPUTER READABLE FORM:
;     MEDIUM TYPE:  Diskette
;     COMPUTER:  IBM Compatible
;     OPERATING SYSTEM:  Windows95
;     SOFTWARE:  FastSEQ for Windows Version 2.0
;   CURRENT APPLICATION DATA:
;     APPLICATION NUMBER:  US/07/737,371E
;     FILING DATE:  29-JUL-1991
;     CLASSIFICATION:  536
;   PRIOR APPLICATION DATA:
;     APPLICATION NUMBER:  07/559,172
;     FILING DATE:  27-JUL-1990
;   ATTORNEY/AGENT INFORMATION:
;     NAME:  Freeman, John W.
;     REGISTRATION NUMBER:  29,066
;     REFERENCE/DOCKET NUMBER:  00108/028002
;   TELECOMMUNICATION INFORMATION:
;     TELEPHONE:  617-542-5070
;     TELEFAX:  617-542-8906
;     TELEX:  200154
; INFORMATION FOR SEQ ID NO:  6:
;   SEQUENCE CHARACTERISTICS:
;     LENGTH:  5 amino acids
;     TYPE:  amino acid
;     TOPOLOGY:  linear
;   MOLECULE TYPE:  protein
US-07-737-371E-6

  Query Match             100.0%;  Score 27;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 4
US-09-265-690C-1
; Sequence 1, Application US/09265690C
; Patent No. 6372440
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound Ma
;  TITLE OF INVENTION:  for Disease Diagnosis
;  FILE REFERENCE: 1427001
;  CURRENT APPLICATION NUMBER: US/09/265,690C
;  CURRENT FILING DATE:  1999-03-10
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (5)..(5)
;   OTHER INFORMATION: AMIDATION
US-09-265-690C-1

  Query Match             100.0%;  Score 27;  DB 3;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              |||||
Db          1 FFGLM 5


RESULT 5
```

```
US-07-737-371E-48
; Sequence 48, Application US/07737371E
; Patent No. 5876948
;  GENERAL INFORMATION:
;    APPLICANT:  Yankner, Bruce A.
;    TITLE OF INVENTION:  SCREENING METHODS TO IDENTIFY
;    TITLE OF INVENTION:  NEUROTOXIN INHIBITORS (AS AMENDED)
;    NUMBER OF SEQUENCES:  77
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson, P.C.
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  US
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  Windows95
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/737,371E
;      FILING DATE:  29-JUL-1991
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/559,172
;      FILING DATE:  27-JUL-1990
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Freeman, John W.
;      REGISTRATION NUMBER:  29,066
;      REFERENCE/DOCKET NUMBER:  00108/028002
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  617-542-5070
;      TELEFAX:  617-542-8906
;      TELEX:  200154
;  INFORMATION FOR SEQ ID NO:  48:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-07-737-371E-48

  Query Match             88.9%;  Score 24;  DB 2;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGLM 5
              :||||
Db          1 YFGLM 5


RESULT 6
US-07-737-371E-47
; Sequence 47, Application US/07737371E
; Patent No. 5876948
;  GENERAL INFORMATION:
;    APPLICANT:  Yankner, Bruce A.
;    TITLE OF INVENTION:  SCREENING METHODS TO IDENTIFY
;    TITLE OF INVENTION:  NEUROTOXIN INHIBITORS (AS AMENDED)
;    NUMBER OF SEQUENCES:  77
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson, P.C.
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  US
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  Windows95
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/737,371E
;      FILING DATE:  29-JUL-1991
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/559,172
;      FILING DATE:  27-JUL-1990
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Freeman, John W.
;      REGISTRATION NUMBER:  29,066
;      REFERENCE/DOCKET NUMBER:  00108/028002
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  617-542-5070
;      TELEFAX:  617-542-8906
;      TELEX:  200154
;  INFORMATION FOR SEQ ID NO:  47:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
;    FEATURE:
;      LOCATION:  5...5
;      OTHER INFORMATION:  where Xaa at position 5 is Nle
US-07-737-371E-47

  Query Match             81.5%;  Score 22;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGL 4
              ||||
Db          1 FFGL 4


RESULT 7
US-07-737-371E-49
; Sequence 49, Application US/07737371E
; Patent No. 5876948
;  GENERAL INFORMATION:
;    APPLICANT:  Yankner, Bruce A.
;    TITLE OF INVENTION:  SCREENING METHODS TO IDENTIFY
;    TITLE OF INVENTION:  NEUROTOXIN INHIBITORS (AS AMENDED)
;    NUMBER OF SEQUENCES:  77
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson, P.C.
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  US
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  Windows95
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/737,371E
;      FILING DATE:  29-JUL-1991
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/559,172
;      FILING DATE:  27-JUL-1990
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Freeman, John W.
;      REGISTRATION NUMBER:  29,066
;      REFERENCE/DOCKET NUMBER:  00108/028002
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  617-542-5070
;      TELEFAX:  617-542-8906
;      TELEX:  200154
;  INFORMATION FOR SEQ ID NO:  49:
;    SEQUENCE CHARACTERISTICS:
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;       LENGTH:  5 amino acids
;       TYPE:  amino acid
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
;     FEATURE:
;       LOCATION:  5...5
;       OTHER INFORMATION:  where Xaa at position 5 is ethionine
US-07-737-371E-49

  Query Match             81.5%;  Score 22;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FFGL 4
              ||||
Db          1 FFGL 4


RESULT 8
US-08-441-591-63
; Sequence 63, Application US/08441591
; Patent No. 5637682
;  GENERAL INFORMATION:
;    APPLICANT:  NIEUWLANDT, D., GOLD, L.  AND WECKER, M.
;    TITLE OF INVENTION:  HIGH-AFFINITY
;    TITLE OF INVENTION:  OLIGONUCLEOTIDE LIGANDS
;    TITLE OF INVENTION:  TO THE TACHYKININ
;    TITLE OF INVENTION:  SUBSTANCE P
;    NUMBER OF SEQUENCES:  66
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Swanson & Bratschun, L.L.C.
;      STREET:  8400 E. Prentice Avenue, Suite 200
;      CITY:  Englewood
;      STATE:  Colorado
;      COUNTRY:  USA
;      ZIP:  80111
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette, 3.50 inch, 1.44 MG storage
;      COMPUTER:  IBM compatible
;      OPERATING SYSTEM:  MS-DOS
;      SOFTWARE:  WordPerfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/441,591
;      FILING DATE:
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/303,362
;      FILING DATE:  9-SEPTEMBER-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/714,131
;      FILING DATE:  10-JUNE-1991
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/931,473
;      FILING DATE:  17-AUGUST-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/117,991
;      FILING DATE:  8-SEPTEMBER 1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/536,428
;      FILING DATE:  11-JUNE-1990
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/964,624
;      FILING DATE:  21-OCTOBER-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Barry J. Swanson
;      REGISTRATION NUMBER:  33,215
;      REFERENCE/DOCKET NUMBER:  NEX21/C
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (303) 793-3333
;      TELEFAX:  (303) 793-3433
;  INFORMATION FOR SEQ ID NO:  63:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  4
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-441-591-63

  Query Match             77.8%;  Score 21;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FGLM 5
              ||||
Db          1 FGLM 4


RESULT 9
US-08-303-362A-63
; Sequence 63, Application US/08303362A
; Patent No. 5648214
;  GENERAL INFORMATION:
;    APPLICANT:  NIEUWLANDT, D., GOLD, L.  AND WECKER, M.
;    TITLE OF INVENTION:  HIGH-AFFINITY
;    TITLE OF INVENTION:  OLIGONUCLEOTIDE LIGANDS
;    TITLE OF INVENTION:  TO THE TACHYKININ
;    TITLE OF INVENTION:  SUBSTANCE P
;    NUMBER OF SEQUENCES:  66
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Swanson & Bratschun, L.L.C.
;      STREET:  8400 E. Prentice Avenue, Suite 200
;      CITY:  Englewood
;      STATE:  Colorado
;      COUNTRY:  USA
;      ZIP:  80111
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette, 3.50 inch, 1.44 MG storage
;      COMPUTER:  IBM compatible
;      OPERATING SYSTEM:  MS-DOS
;      SOFTWARE:  WordPerfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/303,362A
;      FILING DATE:  9-SEPTEMBER-1994
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/714,131
;      FILING DATE:  10-JUNE-1991
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/931,473
;      FILING DATE:  17-AUGUST-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/117,991
;      FILING DATE:  8-SEPTEMBER 1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/536,428
;      FILING DATE:  11-JUNE-1990
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/964,624
;      FILING DATE:  21-OCTOBER-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Barry J. Swanson
;      REGISTRATION NUMBER:  33,215
;      REFERENCE/DOCKET NUMBER:  NEX21
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (303) 793-3333
;      TELEFAX:  (303) 793-3433
;  INFORMATION FOR SEQ ID NO:  63:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  4
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-303-362A-63

  Query Match             77.8%;  Score 21;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
```

```
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FGLM 5
              ||||
Db          1 FGLM 4


RESULT 10
US-09-265-690C-2
; Sequence 2, Application US/09265690C
; Patent No. 6372440
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound Ma
;  TITLE OF INVENTION:  for Disease Diagnosis
;  FILE REFERENCE: 1427001
;  CURRENT APPLICATION NUMBER: US/09/265,690C
;  CURRENT FILING DATE:  1999-03-10
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (4)..(4)
;   OTHER INFORMATION: AMIDATION
US-09-265-690C-2

  Query Match             77.8%;  Score 21;  DB 3;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FGLM 5
              ||||
Db          1 FGLM 4


RESULT 11
US-09-635-266-3
; Sequence 3, Application US/09635266
; Patent No. 6455734
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Antagonists of the magnesium binding defect as therapy agents and
;  TITLE OF INVENTION:  methods for treatment of abnormal physiological states
;  FILE REFERENCE: N1427-002
;  CURRENT APPLICATION NUMBER: US/09/635,266
;  CURRENT FILING DATE:  2000-08-09
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (4)..(4)
;   OTHER INFORMATION: AMIDATION
US-09-635-266-3

  Query Match             77.8%;  Score 21;  DB 4;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FGLM 5
              ||||
Db          1 FGLM 4


RESULT 12
US-10-230-133-3
; Sequence 3, Application US/10230133
; Patent No. 6664420
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Antagonists of the magnesium binding defect as therapy agents an
;  TITLE OF INVENTION:  methods for treatment of abnormal physiological states
;  FILE REFERENCE: 2892-106
;  CURRENT APPLICATION NUMBER: US/10/230,133
;  CURRENT FILING DATE:  2002-08-29
;  PRIOR APPLICATION NUMBER: 09/635,266
;  PRIOR FILING DATE: 2000-08-09
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (4)..(4)
;   OTHER INFORMATION: AMIDATION
US-10-230-133-3

  Query Match             77.8%;  Score 21;  DB 4;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FGLM 5
              ||||
Db          1 FGLM 4


RESULT 13
PCT-US95-05600-80
; Sequence 80, Application PC/TUS9505600
;  GENERAL INFORMATION:
;    APPLICANT:  GOLD, LARRY
;    APPLICANT:  NIEUWLANDT, DAN
;    APPLICANT:  WECKER, MATTHEW
;    APPLICANT:  SCHNEIDER, DANIEL J.
;    APPLICANT:  FEIGON, JULI
;    APPLICANT:  ALLEN, PATRICK
;    APPLICANT:  SULLENGER, BRUCE A.
;    APPLICANT:  DOUDNA, JENNIFER, A.
;    TITLE OF INVENTION:  HIGH-AFFINITY LIGANDS OF
;    TITLE OF INVENTION:  INSULIIN RECEPTOR ANTIBODIES, TACHYKININ SUBSTANCE
;    TITLE OF INVENTION:  P, HIV INTEGRASE AND HIV-1 REVERSE TRANSCRIPTASE
;    NUMBER OF SEQUENCES:  239
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Swanson & Bratschun, L.L.C.
;      STREET:  8400 E. Prentice Avenue, Suite 200
;      CITY:  Englewood
;      STATE:  Colorado
;      COUNTRY:  USA
;      ZIP:  80111
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette, 3.5 inch, 1.44 MG
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM compatible
;      OPERATING SYSTEM:  MS-DOS
;      SOFTWARE:  WordPerfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US95/05600
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/238,863
;      FILING DATE:  06-MAY-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/248,632
;      FILING DATE:  24-MAY-1994
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
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;       APPLICATION NUMBER:  08/303,362
;       FILING DATE:  09-SEPTEMBER-1994
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  08/361,795
;       FILING DATE:  21-DECEMBER-1994
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  08/117,991
;       FILING DATE:  08-SEPTEMBER-1993
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  07/931,473
;       FILING DATE:  17-AUGUST-1992
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  07/964,624
;       FILING DATE:  21-OCTOBER-1992
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  07/536,428
;       FILING DATE:  11-JUNE-1990
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  07/714,131
;       FILING DATE:  10-JUNE-1991
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  07/536,428
;       FILING DATE:  11-JUNE-1990
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Barry J. Swanson
;       REGISTRATION NUMBER:  33,215
;       REFERENCE/DOCKET NUMBER:  NEX17/PCT
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (303) 793-3333
;       TELEFAX:  (303) 793-3433
;   INFORMATION FOR SEQ ID NO:  80:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  4 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
PCT-US95-05600-80

  Query Match             77.8%;  Score 21;  DB 5;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FGLM 5
              ||||
Db          1 FGLM 4


RESULT 14
US-08-070-301-6
; Sequence 6, Application US/08070301
; Patent No. 5871995
;  GENERAL INFORMATION:
;    APPLICANT:  IIDA, Toshio
;    APPLICANT:  KAMINUMA, Toshihiko
;    APPLICANT:  FUSE, Yuka
;    APPLICANT:  TAJIMA, Masahiro
;    APPLICANT:  YANAGI, Mitsuo
;    APPLICANT:  OKAMOTO, Hiroshi
;    APPLICANT:  KISHIMOTO, Jiro
;    APPLICANT:  IFUKU, Ohji
;    APPLICANT:  KATO, Ichiro
;    TITLE OF INVENTION:  ENZYME PARTICIPATING IN C-TERMINAL
;    TITLE OF INVENTION:  AMIDATION, AND METHOD OF PREPARING SAME AND USE THEREOF
;    NUMBER OF SEQUENCES:  21
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Wegner, Cantor, Mueller & Player, P.C.
;      STREET:  1233 20th Street, N.W.
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  U.S.A.
;      ZIP:  20036-8218
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/070,301
;      FILING DATE:  24-MAY-1991
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 1-209687
;      FILING DATE:  15-AUG-1989
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 1-181933
;      FILING DATE:  31-OCT-1989
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 2-76331
;      FILING DATE:  26-MAR-1990
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 2-106412
;      FILING DATE:  24-APR-1990
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 2-205475
;      FILING DATE:  02-AUG-1990
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Player, William E.
;      REGISTRATION NUMBER:  31,409
;      REFERENCE/DOCKET NUMBER:  P-450-22830
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202) 887-040
;      TELEFAX:  (202) 835-0605
;      TELEX:  440706
;  INFORMATION FOR SEQ ID NO:  6:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-070-301-6

  Query Match             77.8%;  Score 21;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 FGLM 5
              ||||
Db          1 FGLM 4


RESULT 15
US-07-753-909B-3
; Sequence 3, Application US/07753909B
; Patent No. 5304632
;  GENERAL INFORMATION:
;    APPLICANT:  Vaudry, Hubert
;    APPLICANT:  Conlon, Michael J.
;    TITLE OF INVENTION:  Neuropeptides of the Tachykinin Family
;    NUMBER OF SEQUENCES:  3
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Zarley, McKee, Thomte, Voorhees, and Sease
;      STREET:  801 Grand, Suite 3200
;      CITY:  Des Moines
;      STATE:  Iowa
;      COUNTRY:  United States
;      ZIP:  50309
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/753,909B
;      FILING DATE:  19910903
;      CLASSIFICATION:  530
```

; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: FR 9106759
; FILING DATE: 04-JUN-1991
; ATTORNEY/AGENT INFORMATION:
; NAME: Sease, Edmund J.
; REGISTRATION NUMBER: 24,741
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (515)-288-3667
; TELEFAX: (515)-288-1338
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 5 amino acids
; TYPE: AMINO ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FRAGMENT TYPE: C-terminal
; ORIGINAL SOURCE:
; ORGANISM: Rana ridibunda
; DEVELOPMENTAL STAGE: adult
; TISSUE TYPE: brain
US-07-753-909B-3

Query Match 74.1%; Score 20; DB 1; Length 5;
Best Local Similarity 80.0%; Pred. No. 4.1e+05;
Matches 4; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy          1 FPGLM 5
              | |||
Db          1 FXGLM 5
```

Search completed: March 23, 2005, 14:50:58
Job time : 31 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 23, 2005, 14:38:05 ; Search time 23.5 Seconds
(without alignments)
20.472 Million cell updates/sec

Title: SEQ2
Perfect score: 25
Sequence: 1 fvglm 5

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 206

Minimum DB seq length: 0
Maximum DB seq length: 5

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	14	56.0	5	2	G44817	27.5 kda structura
2	14	56.0	5	2	I44817	27.5K structural p
3	14	56.0	5	2	E44817	27.5K structural p
4	14	56.0	5	2	C44817	28.5K structural p
5	14	56.0	5	2	A44817	28K structural pro
6	11	44.0	4	2	PT0240	Ig heavy chain CRD
7	11	44.0	5	2	A61445	Met-enkephalin - b
8	11	44.0	5	2	PT0278	Ig heavy chain CRD
9	10	40.0	4	2	A53284	T-cell receptor be
10	10	40.0	5	2	B61168	cocoonase (EC 3.4.
11	10	40.0	5	2	A44692	fulicin - giant Af
12	9	36.0	5	2	A32516	cholecystokinin-5
13	9	36.0	5	4	A58728	serrawettin W2 - S
14	8	32.0	4	2	PT0633	T-cell receptor be
15	8	32.0	5	2	A44955	alkanal monooxygen
16	8	32.0	5	2	B61445	Leu-enkephalin - b
17	8	32.0	5	2	PT0572	T-cell receptor be
18	7	28.0	3	3	B23751	spinal cord peptid
19	7	28.0	4	2	T30569	hypothetical prote
20	7	28.0	4	2	I38888	COI intron 16 prot
21	7	28.0	4	2	E44823	synaptosomal-assoc
22	7	28.0	4	2	PL0140	carbon-monoxide de
23	7	28.0	4	2	A35779	neuropeptide Antho
24	7	28.0	4	2	A60418	FMRFamide - polych
25	7	28.0	4	2	PT0721	T-cell receptor be
26	7	28.0	4	2	A32039	tyrosine-melanocyt
27	7	28.0	4	2	ECNK	cardioexcitatory n
28	7	28.0	5	2	T10954	hypothetical prote
29	7	28.0	5	2	B45525	actin I - malaria
30	7	28.0	5	2	D44823	synaptosomal-assoc
31	7	28.0	5	2	PT0713	T-cell receptor be
32	7	28.0	5	2	S69237	surface protein te
33	6	24.0	3	3	PT0636	T-cell receptor be
34	6	24.0	3	3	PT0571	T-cell receptor be
35	6	24.0	3	3	S68328	blood cell protein
36	6	24.0	3	3	GKHU	growth-modulating
37	6	24.0	3	3	A60898	bursin - chicken
38	6	24.0	3	3	A23751	spinal cord peptid
39	6	24.0	4	1	ECXAA	antho-RFamide neur
40	6	24.0	4	2	D41654	hypothetical prote
41	6	24.0	4	2	S53508	starvation-induced
42	6	24.0	4	2	A25844	autho-RF amide neu
43	6	24.0	4	2	A34626	RPCH-related neuro
44	6	24.0	4	2	S39390	myosin-light-chain
45	6	24.0	4	2	S43959	Ig mu chain V regi

ALIGNMENTS

RESULT 1
G44817
27.5 kda structural protein - Leuconostoc oenos phage P32 (fragment)
C;Species: Leuconostoc oenos phage P32
C;Date: 31-Mar-1993 #sequence_revision 22-May-1998 #text_change 22-May-1998
C;Accession: G44817
R;Arendt, E.K.; Lonvaud, A.; Hammes, W.P.
J. Gen. Microbiol. 137, 2135-2139, 1991
A;Title: Lysogeny in Leuconostoc oenos.
A;Reference number: A44817; MUID:92085033; PMID:1748868
A;Accession: G44817
A;Molecule type: protein
A;Residues: 1-5 <ARE>
A;Note: sequence extracted from NCBI backbone (NCBIP:70333)

Query Match 56.0%; Score 14; DB 2; Length 5;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          2 VGL 4
              |||
Db          3 VGL 5
```

RESULT 2
I44817
27.5K structural protein - Leuconostoc oenos phage P37 (fragment)
C;Species: Leuconostoc oenos phage P37
C;Date: 31-Mar-1993 #sequence_revision 22-May-1998 #text_change 22-May-1998
C;Accession: I44817
R;Arendt, E.K.; Lonvaud, A.; Hammes, W.P.
J. Gen. Microbiol. 137, 2135-2139, 1991
A;Title: Lysogeny in Leuconostoc oenos.
A;Reference number: A44817; MUID:92085033; PMID:1748868
A;Accession: I44817
A;Molecule type: protein
A;Residues: 1-5 <ARE>
A;Note: sequence extracted from NCBI backbone (NCBIP:70330)

Query Match 56.0%; Score 14; DB 2; Length 5;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          2 VGL 4
              |||
Db          3 VGL 5
```

RESULT 3
E44817
27.5K structural protein - Leuconostoc oenos phage P54 (fragment)
C;Species: Leuconostoc oenos phage P54

C;Date: 31-Mar-1993 #sequence_revision 22-May-1998 #text_change 22-May-1998
C;Accession: E44817
R;Arendt, E.K.; Lonvaud, A.; Hammes, W.P.
J. Gen. Microbiol. 137, 2135-2139, 1991
A;Title: Lysogeny in Leuconostoc oenos.
A;Reference number: A44817; MUID:92085033; PMID:1748868
A;Accession: E44817
A;Molecule type: protein
A;Residues: 1-5 <ARE>
A;Note: sequence extracted from NCBI backbone (NCBIP:70336)

Query Match 56.0%; Score 14; DB 2; Length 5;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 VGL 4
|||
Db 3 VGL 5

RESULT 4
C44817
28.5K structural protein - Leuconostoc oenos phage PAt5-12 (fragment)
C;Species: Leuconostoc oenos phage PAt5-12
C;Date: 31-Mar-1993 #sequence_revision 22-May-1998 #text_change 22-May-1998
C;Accession: C44817
R;Arendt, E.K.; Lonvaud, A.; Hammes, W.P.
J. Gen. Microbiol. 137, 2135-2139, 1991
A;Title: Lysogeny in Leuconostoc oenos.
A;Reference number: A44817; MUID:92085033; PMID:1748868
A;Accession: C44817
A;Molecule type: protein
A;Residues: 1-5 <ARE>
A;Note: sequence extracted from NCBI backbone (NCBIP:70341)

Query Match 56.0%; Score 14; DB 2; Length 5;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 VGL 4
|||
Db 3 VGL 5

RESULT 5
A44817
28K structural protein - Leuconostoc oenos phage PZt11-15 (fragment)
C;Species: Leuconostoc oenos phage PZt11-15
C;Date: 31-Mar-1993 #sequence_revision 22-May-1998 #text_change 22-May-1998
C;Accession: A44817
R;Arendt, E.K.; Lonvaud, A.; Hammes, W.P.
J. Gen. Microbiol. 137, 2135-2139, 1991
A;Title: Lysogeny in Leuconostoc oenos.
A;Reference number: A44817; MUID:92085033; PMID:1748868
A;Accession: A44817
A;Molecule type: protein
A;Residues: 1-5 <ARE>
A;Note: sequence extracted from NCBI backbone (NCBIP:70343)

Query Match 56.0%; Score 14; DB 2; Length 5;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 VGL 4
|||
Db 3 VGL 5

RESULT 6
PT0240
Ig heavy chain CRD3 region (clone 2-100B) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0240
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0240
A;Molecule type: DNA
A;Residues: 1-4 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

Query Match 44.0%; Score 11; DB 2; Length 4;
Best Local Similarity 50.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 FVGL 4
: ||
Db 1 YPGL 4

RESULT 7
A61445
Met-enkephalin - blue mussel
C;Species: Mytilus edulis (blue mussel)
C;Date: 07-Oct-1994 #sequence_revision 07-Oct-1994 #text_change 21-Jan-2000
C;Accession: A61445
R;Leung, M.K.; Stefano, G.B.
Proc. Natl. Acad. Sci. U.S.A. 81, 955-958, 1984
A;Title: Isolation and identification of enkephalins in pedal ganglia of Mytilus edulis
A;Reference number: A61445; MUID:84144823; PMID:6583690
A;Accession: A61445
A;Molecule type: protein
A;Residues: 1-5 <LEU>
A;Experimental source: pedal ganglia
C;Keywords: neuropeptide; opioid peptide

Query Match 44.0%; Score 11; DB 2; Length 5;
Best Local Similarity 66.7%; Pred. No. 2.8e+05;
Matches 2; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 3 GLM 5
| |
Db 3 GFM 5

RESULT 8
PT0278
Ig heavy chain CRD3 region (clone 4-88) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0278
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0278
A;Molecule type: DNA
A;Residues: 1-5 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

Query Match 44.0%; Score 11; DB 2; Length 5;
Best Local Similarity 20.0%; Pred. No. 2.8e+05;
Matches 1; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Qy 1 FVGLM 5
: |::
Db 1 YPGVL 5

RESULT 9
A53284
T-cell receptor beta 2 chain D region, Dbeta2 - rabbit

```
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 02-May-1994 #sequence_revision 18-Nov-1994 #text_change 05-Nov-1999
C;Accession: A53284
R;Harindranath, N.; Alexander, C.B.; Mage, R.G.
Mol. Immunol. 28, 881-888, 1991
A;Title: Evolutionarily conserved organization and sequences of germline diversity and j
A;Reference number: A53284; MUID:91342695; PMID:1678859
A;Accession: A53284
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-4 <HAR>
A;Cross-references: GB:S60737; NID:g233916; PIDN:AAB19517.1; PID:g233917
A;Note: sequence extracted from NCBI backbone (NCBIN:60737, NCBIP:60739)
C;Keywords: T-cell receptor

  Query Match             40.0%;  Score 10;  DB 2;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GL 4
              ||
Db          1 GL 2


RESULT 10
B61168
cocoonase (EC 3.4.21.-) - Chinese oak silkmoth (fragment)
C;Species: Antheraea pernyi (Chinese oak silkmoth)
C;Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 07-May-1999
C;Accession: B61168
R;Kramer, K.J.; Felsted, R.L.; Law, J.H.
J. Biol. Chem. 248, 3021-3028, 1973
A;Title: Cocoonase. V. Structural studies on an insect serine protease.
A;Reference number: A61168; MUID:73166540; PMID:4735570
A;Accession: B61168
A;Molecule type: protein
A;Residues: 1-5 <KRA>
C;Keywords: hydrolase; serine proteinase; zymogen
F;1-5/Product: cocoonase (fragment) #status experimental <MAT>

  Query Match             40.0%;  Score 10;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 VG 3
              ||
Db          2 VG 3


RESULT 11
A44692
fulicin - giant African snail
C;Species: Achatina fulica (giant African snail)
C;Date: 23-Mar-1995 #sequence_revision 05-Apr-1995 #text_change 09-Jul-2004
C;Accession: A44692
R;Ohta, N.; Kubota, I.; Takao, T.; Shimonishi, Y.; Yasuda-Kamatani, Y.; Minakata, H.; No
Biochem. Biophys. Res. Commun. 178, 486-493, 1991
A;Title: Fulicin, a novel neuropeptide containing a D-amino acid residue isolated from t
A;Reference number: A44692; MUID:91315471; PMID:1859408
A;Accession: A44692
A;Molecule type: protein
A;Residues: 1-5 <OHT>
A;Cross-references: UNIPROT:P35905
C;Keywords: amidated carboxyl end; D-amino acid; neuropeptide
F;2/Modified site: D-asparagine (Asn) #status experimental
F;5/Modified site: amidated carboxyl end (Val) #status experimental

  Query Match             40.0%;  Score 10;  DB 2;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FV 2
              ||
Db          4 FV 5


RESULT 12
A32516
cholecystokinin-5 - dog
N;Alternate names: CCK-5
C;Species: Canis lupus familiaris (dog)
C;Date: 18-Oct-1989 #sequence_revision 18-Oct-1989 #text_change 18-Aug-2000
C;Accession: A32516
R;Shively, J.; Reeve Jr., J.R.; Eysselein, V.E.; Ben-Avram, C.; Vigna, S.R.; Walsh, J.H.
Am. J. Physiol. 252, G272-G275, 1987
A;Title: CCK-5: sequence analysis of a small cholecystokinin from canine brain and intes
A;Reference number: A32516; MUID:87153871; PMID:3826354
A;Accession: A32516
A;Molecule type: protein
A;Residues: 1-5 <SHI>
C;Comment: This peptide corresponds to the five carboxyl-terminal residues of cholecysto
C;Superfamily: gastrin
C;Keywords: amidated carboxyl end; neuropeptide
F;5/Modified site: amidated carboxyl end (Phe) #status experimental

  Query Match             36.0%;  Score 9;  DB 2;  Length 5;
  Best Local Similarity   66.7%;  Pred. No. 2.8e+05;
  Matches    2;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          3 GLM 5
              | |
Db          1 GWM 3


RESULT 13
A58728
serrawettin W2 - Serratia marcescens
C;Species: Serratia marcescens
C;Date: 10-Feb-1998 #sequence_revision 12-Feb-1998 #text_change 12-Feb-1998
C;Accession: A58728
R;Matsuyama, T.; Kaneda, K.; Nakagawa, Y.; Isa, K.; Hara-Hotta, H.; Yano, I.
J. Bacteriol. 174, 1769-1776, 1992
A;Title: A novel extracellular cyclic lipopeptide which promotes flagellum-dependent and
A;Reference number: A58728; MUID:92193260; PMID:1548227
A;Accession: A58728
A;Status: unencoded polypeptide
A;Molecule type: protein
A;Residues: 1-5 <MAT>
A;Experimental source: strain NS 25
C;Comment: A surfactant lipopeptide promoting flagellum-independent surface translocatio
C;Keywords: blocked amino end; blocked carboxyl end; D-amino acid; lipoprotein; unencode
F;1/Modified site: D-leucine (Leu) #status experimental
F;4/Modified site: D-phenylalanine (Phe) #status experimental
F;1-5/Cross-link: 3-hydroxydecanoyl amino end, ester carboxyl end (Leu-Ile) #status expe

  Query Match             36.0%;  Score 9;  DB 4;  Length 5;
  Best Local Similarity   50.0%;  Pred. No. 2.8e+05;
  Matches    1;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FV 2
              |:
Db          4 FI 5


RESULT 14
PT0633
T-cell receptor beta chain V-D-J region (120-2C) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 09-Jul-2004
C;Accession: PT0633
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0633
A;Status: translation not shown
```

A;Molecule type: mRNA
A;Residues: 1-4 <FEE>
A;Cross-references: UNIPROT:Q8BIV7
A;Experimental source: newborn thymus, strain BALB/c
C;Keywords: T-cell receptor

Query Match 32.0%; Score 8; DB 2; Length 4;
Best Local Similarity 50.0%; Pred. No. 2.8e+05;
Matches 1; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          3 GL 4
              |:
Db          3 GI 4
```

RESULT 15
A44955
alkanal monooxygenase (FMN-linked) (EC 1.14.14.3) alpha chain - Vibrio harveyi (fragment
C;Species: Vibrio harveyi
C;Date: 03-Jun-1993 #sequence_revision 03-Jun-1993 #text_change 26-May-2000
C;Accession: A44955
R;Paquatte, O.; Tu, S.C.
Photochem. Photobiol. 50, 817-825, 1989
A;Title: Chemical modification and characterization of the alpha cysteine 106 at the Vib
A;Reference number: A44955; MUID:90175700; PMID:2626493
A;Accession: A44955
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-5 <PAQ>
C;Keywords: FMN; luminescence; monooxygenase; oxidoreductase

Query Match 32.0%; Score 8; DB 2; Length 5;
Best Local Similarity 50.0%; Pred. No. 2.8e+05;
Matches 1; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy          3 GL 4
              |:
Db          2 GI 3
```

Search completed: March 23, 2005, 14:51:54
Job time : 24.5 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 23, 2005, 14:21:29 ; Search time 112.5 Seconds
(without alignments)
22.759 Million cell updates/sec

Title: SEQ2
Perfect score: 25
Sequence: 1 fvglm 5

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 53

Minimum DB seq length: 0
Maximum DB seq length: 5

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	16	64.0	5	1	TPIS_CANFA	P54714 canis famil
2	10	40.0	4	1	EOSI_HUMAN	P02731 homo sapien
3	10	40.0	5	1	AL14_CARMA	P81817 carcinus ma
4	10	40.0	5	1	EI03_LITRU	P82099 litoria rub
5	10	40.0	5	1	RE32_LITRU	P82073 litoria rub
6	10	40.0	5	1	UF01_MOUSE	P38639 mus musculu
7	9	36.0	4	1	ILME_SEPOF	P83568 sepia offic
8	9	36.0	5	1	EI04_LITRU	P82100 litoria rub
9	7	28.0	4	1	DCML_PSECH	P19916 pseudomonas
10	7	28.0	4	1	FLRF_HIRME	P42561 hirudo medi
11	7	28.0	4	1	FLRN_ANTEL	P58707 anthopleura
12	7	28.0	4	1	FMRF_MACNI	P01162 macrocallis
13	6	24.0	2	1	GWA_SEPOF	P83570 sepia offic
14	6	24.0	3	1	GRWM_HUMAN	P01157 homo sapien
15	6	24.0	4	1	ACH1_ACHFU	P35904 achatina fu
16	6	24.0	4	1	FAR3_HIRME	P42562 hirudo medi
17	6	24.0	4	1	FAR4_HIRME	P42563 hirudo medi
18	6	24.0	4	1	FFKA_ANTEL	P58705 anthopleura
19	6	24.0	4	1	FYRI_ANTEL	P58706 anthopleura
20	6	24.0	4	1	OCP1_OCTMI	P58648 octopus min
21	6	24.0	4	1	OCP3_OCTMI	P58649 octopus min
22	6	24.0	4	2	Q16047	Q16047 homo sapien
23	6	24.0	5	1	AP21_EISFO	P84182 eisenia foe
24	6	24.0	5	1	FARP_ARTTR	P41853 artioposthi
25	6	24.0	5	1	FARP_CHICK	P83308 gallus gall
26	6	24.0	5	1	PAP2_PARMA	P81864 pardachirus
27	6	24.0	5	1	PSK_DAUCA	P58261 daucus caro
28	6	24.0	5	1	RE11_LITRU	P82070 litoria rub
29	6	24.0	5	1	RE21_LITRU	P82071 litoria rub
30	6	24.0	5	1	RE31_LITRU	P82072 litoria rub
31	6	24.0	5	1	SUGA_ACHDO	P19991 acheta dome
32	6	24.0	5	1	UC22_MAIZE	P80628 zea mays (m
33	6	24.0	5	1	UXA4_CHLTR	P38005 chlamydia t
34	5	20.0	4	1	DCMS_PSECH	P19918 pseudomonas
35	5	20.0	4	2	Q96AT0	Q96at0 homo sapien
36	5	20.0	5	1	BIOA_CITFR	P13071 citrobacter
37	5	20.0	5	1	BIOB_CITFR	P12997 citrobacter
38	5	20.0	5	2	Q99007	Q99007 hordeum vul
39	5	20.0	5	2	P83073	P83073 bacillus ce
40	4	16.0	4	1	YLM1_YEAST	P36515 saccharomyc
41	4	16.0	4	2	Q08433	Q08433 rattus sp.
42	4	16.0	5	1	PRCT_CARMA	P67857 carcinus ma
43	4	16.0	5	1	PRCT_LIMPO	P67858 limulus pol
44	4	16.0	5	1	PRCT_PERAM	P67859 periplaneta
45	3	12.0	3	1	LUXE_VIBFI	P24272 vibrio fisc

ALIGNMENTS

RESULT 1
TPIS_CANFA
ID TPIS_CANFA STANDARD; PRT; 5 AA.
AC P54714;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Triosephosphate isomerase (EC 5.3.1.1) (TIM) (Triose-phosphate
DE isomerase) (Fragment).
GN Name=TPI1;
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX NCBI_TaxID=9615;
RN [1]
RP SEQUENCE.
RC TISSUE=Heart;
RX MEDLINE=98163340; PubMed=9504812;
RA Dunn M.J., Corbett J.M., Wheeler C.H.;
RT "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT dog heart proteins.";
RL Electrophoresis 18:2795-2802(1997).
CC -!- CATALYTIC ACTIVITY: D-glyceraldehyde 3-phosphate = glycerone
CC phosphate.
CC -!- PATHWAY: Plays an important role in several metabolic pathways.
CC -!- SUBUNIT: Homodimer (By similarity).
CC -!- SIMILARITY: Belongs to the triosephosphate isomerase family.
DR HSC-2DPAGE; P54714; DOG.
DR InterPro; IPR000652; Triophos_ismrse.
DR PROSITE; PS00171; TIM; PARTIAL.
KW Direct protein sequencing; Fatty acid biosynthesis; Gluconeogenesis;
KW Glycolysis; Isomerase; Pentose shunt.
FT NON_TER 1 1
FT NON_TER 5 5
SQ SEQUENCE 5 AA; 550 MW; 64444862C9A00000 CRC64;

Query Match 64.0%; Score 16; DB 1; Length 5;
Best Local Similarity 100.0%; Pred. No. 1.6e+06;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 FVG 3
              |||
Db          1 FVG 3
```

RESULT 2
EOSI_HUMAN
ID EOSI_HUMAN STANDARD; PRT; 4 AA.
AC P02731;
DT 21-JUL-1986 (Rel. 01, Created)
DT 21-JUL-1986 (Rel. 01, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Eosinophilotactic peptides.
OS Homo sapiens (Human).

```
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=76078412; PubMed=1060093;
RA   Goetzl E.J., Austen K.F.;
RT   "Purification and synthesis of eosinophilotactic tetrapeptides of
RT   human lung tissue: identification as eosinophil chemotactic factor of
RT   anaphylaxis.";
RL   Proc. Natl. Acad. Sci. U.S.A. 72:4123-4127(1975).
CC   -!- MISCELLANEOUS: These peptides are released from mast cells in lung
CC       (and other tissues) during hypersensitivity reactions
CC       (anaphylaxis). Their activities, preferentially affecting
CC       eosinophils, include chemotaxis, chemotactic deactivation, release
CC       of enzymes, and stimulation of the hexose monophosphate shunt.
DR   GO; GO:0006935; P:chemotaxis; IDA.
DR   GO; GO:0006955; P:immune response; IDA.
KW   Direct protein sequencing.
FT   VARIANT       1      1       V -> A (in other peptide).
FT                                /FTId=VAR_005201.
SQ   SEQUENCE   4 AA;  390 MW;  6B05B862A0000000 CRC64;

  Query Match             40.0%;  Score 10;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 VG 3
              ||
Db          1 VG 2


RESULT 3
AL14_CARMA
ID   AL14_CARMA     STANDARD;      PRT;     5 AA.
AC   P81817;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Carcinustatin 14.
OS   Carcinus maenas (Common shore crab) (Green crab).
OC   Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC   Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Brachyura;
OC   Eubrachyura; Portunoidea; Portunidae; Carcinus.
OX   NCBI_TaxID=6759;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Cerebral ganglion, and Thoracic ganglion;
RX   MEDLINE=98121193; PubMed=9461295;
RA   Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Jaros P.P.,
RA   Thorpe A.;
RT   "Isolation and identification of multiple neuropeptides of the
RT   allatostatin superfamily in the shore crab Carcinus maenas.";
RL   Eur. J. Biochem. 250:727-734(1997).
CC   -!- FUNCTION: May act as a neurotransmitter or neuromodulator.
CC   -!- SIMILARITY: Belongs to the allatostatin family.
KW   Amidation; Direct protein sequencing; Multigene family; Neuropeptide.
FT   MOD_RES       5      5       Leucine amide (Potential).
SQ   SEQUENCE   5 AA;  586 MW;  672879D5AB300000 CRC64;

  Query Match             40.0%;  Score 10;  DB 1;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GL 4
              ||
Db          4 GL 5


RESULT 4
EI03_LITRU
ID   EI03_LITRU     STANDARD;      PRT;     5 AA.
AC   P82099;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Electrin 3.
OS   Litoria rubella (Desert tree frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC   Pelodryadinae; Litoria.
OX   NCBI_TaxID=104895;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Skin secretion;
RA   Wabnitz P.A., Bowie J.H., Tyler M.J., Wallace J.C.;
RT   "Peptides from the skin glands of the Australian buzzing tree frog
RT   Litori electrica. Comparison with the skin peptides from Litoria
RT   rubella.";
RL   Aust. J. Chem. 52:639-645(1999).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Skin.
KW   Amidation; Amphibian defense peptide; Direct protein sequencing.
FT   MOD_RES       5      5       Methionine amide.
SQ   SEQUENCE   5 AA;  630 MW;  668761F2C9A00000 CRC64;

  Query Match             40.0%;  Score 10;  DB 1;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FV 2
              ||
Db          1 FV 2


RESULT 5
RE32_LITRU
ID   RE32_LITRU     STANDARD;      PRT;     5 AA.
AC   P82073;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Rubellidin 3.2.
OS   Litoria rubella (Desert tree frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC   Pelodryadinae; Litoria.
OX   NCBI_TaxID=104895;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Skin secretion;
RA   Wabnitz P.A., Bowie J.H., Tyler M.J., Wallace J.C.;
RT   "Peptides from the skin glands of the Australian buzzing tree frog
RT   Litori electrica. Comparison with the skin peptides from Litoria
RT   rubella.";
RL   Aust. J. Chem. 52:639-645(1999).
CC   -!- FUNCTION: Shows neither neuropeptide activity nor antibiotic
CC       activity.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
KW   Amphibian defense peptide; Direct protein sequencing.
SQ   SEQUENCE   5 AA;  570 MW;  71A9C9C862A00000 CRC64;

  Query Match             40.0%;  Score 10;  DB 1;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 VG 3
              ||
Db          1 VG 2


RESULT 6
UF01_MOUSE
ID   UF01_MOUSE     STANDARD;      PRT;     5 AA.
AC   P38639;
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DT   01-OCT-1994 (Rel. 30, Created)
DT   01-OCT-1994 (Rel. 30, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Unknown protein from 2D-PAGE of fibroblasts (P19) (Fragment).
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Fibroblast;
RX   MEDLINE=95009907; PubMed=7523108;
RA   Merrick B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;
RT   "Separation and sequencing of familiar and novel murine proteins using
RT   preparative two-dimensional gel electrophoresis.";
RL   Electrophoresis 15:735-745(1994).
CC   -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC       protein is: 6.6, its MW is: 19 kDa.
KW   Direct protein sequencing.
FT   NON_TER       5       5
SQ   SEQUENCE   5 AA;  717 MW;  7364087043100000 CRC64;

  Query Match             40.0%;  Score 10;  DB 1;  Length 5;
  Best Local Similarity   33.3%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FVG 3
              ::|
Db          1 WIG 3


RESULT 7
ILME_SEPOF
ID   ILME_SEPOF     STANDARD;      PRT;     4 AA.
AC   P83568;
DT   29-MAR-2004 (Rel. 43, Created)
DT   29-MAR-2004 (Rel. 43, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Pheromone peptide ILME.
OS   Sepia officinalis (Common cuttlefish).
OC   Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC   Decapodiformes; Sepioidea; Sepiidae; Sepia.
OX   NCBI_TaxID=6610;
RN   [1]
RP   SEQUENCE, SUBCELLULAR LOCATION, TISSUE SPECIFICITY, AND MASS
RP   SPECTROMETRY.
RC   TISSUE=Egg;
RX   MEDLINE=20403899; PubMed=10944467; DOI=10.1006/bbrc.2000.3286;
RA   Zatylny C., Gagnon J., Boucaud-Camou E., Henry J.;
RT   "ILME: a waterborne pheromonal peptide released by the eggs of Sepia
RT   officinalis.";
RL   Biochem. Biophys. Res. Commun. 275:217-222(2000).
RN   [2]
RP   SEQUENCE.
RC   TISSUE=Egg;
RX   MEDLINE=22197108; PubMed=12207899; DOI=10.1016/S0006-291X(02)02036-3;
RA   Zatylny C., Marvin L., Gagnon J., Henry J.;
RT   "Fertilization in Sepia officinalis: the first mollusk sperm-
RT   attracting peptide.";
RL   Biochem. Biophys. Res. Commun. 296:1186-1193(2002).
CC   -!- FUNCTION: Has myotropic activity targeting the genital tract.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Follicle, fully grown oocyte and egg(EC2).
CC   -!- MASS SPECTROMETRY: MW=505.4; METHOD=MALDI; RANGE=1-4; NOTE=Ref.1.
KW   Direct protein sequencing; Pheromone.
SQ   SEQUENCE   4 AA;  505 MW;  6B16972030000000 CRC64;

  Query Match             36.0%;  Score 9;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          4 LM 5
              ||
Db          2 LM 3


RESULT 8
EI04_LITRU
ID   EI04_LITRU     STANDARD;      PRT;     5 AA.
AC   P82100;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Electrin 4.
OS   Litoria rubella (Desert tree frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC   Pelodryadinae; Litoria.
OX   NCBI_TaxID=104895;
RN   [1]
RP   SEQUENCE.
RC   TISSUE=Skin secretion;
RA   Wabnitz P.A., Bowie J.H., Tyler M.J., Wallace J.C.;
RT   "Peptides from the skin glands of the Australian buzzing tree frog
RT   Litori electrica. Comparison with the skin peptides from Litoria
RT   rubella.";
RL   Aust. J. Chem. 52:639-645(1999).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Skin.
KW   Amidation; Amphibian defense peptide; Direct protein sequencing.
FT   MOD_RES       5       5       Histidine amide.
SQ   SEQUENCE   5 AA;  616 MW;  61F2D1A059A00000 CRC64;

  Query Match             36.0%;  Score 9;  DB 1;  Length 5;
  Best Local Similarity   50.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FV 2
              |:
Db          1 FI 2


RESULT 9
DCML_PSECH
ID   DCML_PSECH     STANDARD;      PRT;     4 AA.
AC   P19916;
DT   01-FEB-1991 (Rel. 17, Created)
DT   01-FEB-1991 (Rel. 17, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Carbon monoxide dehydrogenase large chain (EC 1.2.99.2) (CO
DE   dehydrogenase subunit L) (CO-DH L) (Fragment).
GN   Name=cutL;
OS   Pseudomonas carboxydohydrogena.
OC   Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
OC   Bradyrhizobiaceae.
OX   NCBI_TaxID=290;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=90055678; PubMed=2818128;
RA   Kraut M., Hugendieck I., Herwig S., Meyer O.;
RT   "Homology and distribution of CO dehydrogenase structural genes in
RT   carboxydotrophic bacteria.";
RL   Arch. Microbiol. 152:335-341(1989).
CC   -!- FUNCTION: Catalyzes the oxidation of carbon monoxide to carbon
CC       dioxide.
CC   -!- CATALYTIC ACTIVITY: CO + H(2)O + A = CO(2) + AH(2).
CC   -!- COFACTOR: Binds 1 copper(I) ion, 1 molybdenum(VI) ion and 1
CC       molybdopterin cytosine dinucleotide (MCD) per subunit.
CC   -!- SUBUNIT: Heterotrimer consisting of a large, a medium and a small
CC       subunit.
DR   PIR; PL0140; PL0140.
KW   Direct protein sequencing; Molybdenum; Oxidoreductase.
FT   NON_TER       4       4
SQ   SEQUENCE   4 AA;  441 MW;  7761E876F0000000 CRC64;

  Query Match             28.0%;  Score 7;  DB 1;  Length 4;
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  Best Local Similarity   50.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 VG 3
              :|
Db          1 MG 2


RESULT 10
FLRF_HIRME
ID   FLRF_HIRME     STANDARD;      PRT;     4 AA.
AC   P42561;
DT   01-NOV-1995 (Rel. 32, Created)
DT   01-NOV-1995 (Rel. 32, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   FLRFamide.
OS   Hirudo medicinalis (Medicinal leech), and
OS   Helisoma trivolvis (Snail).
OC   Eukaryota; Metazoa; Annelida; Clitellata; Hirudinida; Hirudinea;
OC   Arhynchobdellida; Hirudiniformes; Hirudinidae; Hirudo.
OX   NCBI_TaxID=6421, 27815;
RN   [1]
RP   SEQUENCE.
RC   SPECIES=H.medicinalis;
RX   MEDLINE=92195954; PubMed=1686933; DOI=10.1016/0196-9781(91)90035-N;
RA   Evans B.D., Pohl J., Kartsonis M.A., Calabrese R.L.;
RT   "Identification of RFamide neuropeptides in the medicinal leech.";
RL   Peptides 12:897-908(1991).
RN   [2]
RP   SEQUENCE.
RC   SPECIES=H.trivolvis; TISSUE=Kidney;
RX   MEDLINE=94286417; PubMed=7912428; DOI=10.1016/0196-9781(94)90166-X;
RA   Madrid K.P., Price D.A., Greenberg M.J., Khan H.R., Saleuddin A.S.M.;
RT   "FMRFamide-related peptides from the kidney of the snail, Helisoma
RT   trivolvis.";
RL   Peptides 15:31-36(1994).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC       family.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   MOD_RES       4       4       Phenylalanine amide.
SQ   SEQUENCE   4 AA;  582 MW;  69D40729A0000000 CRC64;

  Query Match             28.0%;  Score 7;  DB 1;  Length 4;
  Best Local Similarity   50.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FV 2
              |:
Db          1 FL 2


RESULT 11
FLRN_ANTEL
ID   FLRN_ANTEL     STANDARD;      PRT;     4 AA.
AC   P58707;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Antho-RNamide.
OS   Anthopleura elegantissima (Sea anemone).
OC   Eukaryota; Metazoa; Cnidaria; Anthozoa; Zoantharia; Actiniaria;
OC   Nynantheae; Actiniidae; Anthopleura.
OX   NCBI_TaxID=6110;
RN   [1]
RP   SEQUENCE, AND MASS SPECTROMETRY.
RX   MEDLINE=90319122; PubMed=1973541;
RA   Grimmelikhuijzen C.J.P., Rinehart K.L. Jr., Jacob E., Graff D.,
RA   Reinscheid R.K., Nothacker H.-P., Staley A.L.;
RT   "Isolation of L-3-phenyllactyl-Leu-Arg-Asn-NH2 (Antho-RNamide), a sea
RT   anemone neuropeptide containing an unusual amino-terminal blocking
RT   group.";
RL   Proc. Natl. Acad. Sci. U.S.A. 87:5410-5414(1990).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Neuron specific.
CC   -!- MASS SPECTROMETRY: MW=549.3; METHOD=FAB; RANGE=1-4; NOTE=Ref.1.
DR   PIR; A35779; A35779.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   MOD_RES       1       1       3-phenyllactic acid.
FT   MOD_RES       4       4       Asparagine amide.
SQ   SEQUENCE   4 AA;  549 MW;  64540729A0000000 CRC64;

  Query Match             28.0%;  Score 7;  DB 1;  Length 4;
  Best Local Similarity   50.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FV 2
              |:
Db          1 FL 2


RESULT 12
FMRF_MACNI
ID   FMRF_MACNI     STANDARD;      PRT;     4 AA.
AC   P01162;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   FMRFamide (Peak C) (Cardioexcitatory neuropeptide).
OS   Macrocallista nimbosa (Sun-ray clam),
OS   Nereis virens (Sandworm),
OS   Hirudo medicinalis (Medicinal leech), and
OS   Helisoma trivolvis (Snail).
OC   Eukaryota; Metazoa; Mollusca; Bivalvia; Heteroconchia; Veneroida;
OC   Veneroidea; Veneridae; Macrocallista.
OX   NCBI_TaxID=6594, 6353, 6421, 27815;
RN   [1]
RP   SEQUENCE, AND SYNTHESIS.
RC   SPECIES=M.nimbosa; TISSUE=Cerebral pedal, and Visceral ganglion;
RX   MEDLINE=77215956; PubMed=877582;
RA   Price D.A., Greenberg M.J.;
RT   "Structure of a molluscan cardioexcitatory neuropeptide.";
RL   Science 197:670-671(1977).
RN   [2]
RP   SEQUENCE, AND CHARACTERIZATION.
RC   SPECIES=M.nimbosa; TISSUE=Ganglion;
RX   MEDLINE=78012038; PubMed=909875;
RA   Price D.A., Greenberg M.J.;
RT   "Purification and characterization of a cardioexcitatory neuropeptide
RT   from the central ganglia of a bivalve mollusc.";
RL   Prep. Biochem. 7:261-281(1977).
RN   [3]
RP   SEQUENCE.
RC   SPECIES=N.virens;
RX   MEDLINE=90259866; PubMed=2342992; DOI=10.1016/0196-9781(90)90113-J;
RA   Krajniak K.G., Price D.A.;
RT   "Authentic FMRFamide is present in the polychaete Nereis virens.";
RL   Peptides 11:75-77(1990).
RN   [4]
RP   SEQUENCE.
RC   SPECIES=H.medicinalis;
RX   MEDLINE=92195954; PubMed=1686933; DOI=10.1016/0196-9781(91)90035-N;
RA   Evans B.D., Pohl J., Kartsonis M.A., Calabrese R.L.;
RT   "Identification of RFamide neuropeptides in the medicinal leech.";
RL   Peptides 12:897-908(1991).
RN   [5]
RP   SEQUENCE.
RC   SPECIES=H.trivolvis; TISSUE=Kidney;
RX   MEDLINE=94286417; PubMed=7912428; DOI=10.1016/0196-9781(94)90166-X;
RA   Madrid K.P., Price D.A., Greenberg M.J., Khan H.R., Saleuddin A.S.M.;
RT   "FMRFamide-related peptides from the kidney of the snail, Helisoma
RT   trivolvis.";
RL   Peptides 15:31-36(1994).
CC   -!- FUNCTION: Myoactive; cardioexcitatory substance. Pharmacological
CC       activities include augmentation, induction, and regularization of
CC       cardiac contraction.
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CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC       family.
DR   PIR; A01426; ECNK.
DR   PIR; A60418; A60418.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   MOD_RES       4       4       Phenylalanine amide.
SQ   SEQUENCE   4 AA;  600 MW;  69D40699A0000000 CRC64;

  Query Match             28.0%;  Score 7;  DB 1;  Length 4;
  Best Local Similarity   50.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FV 2
              |:
Db          1 FM 2


RESULT 13
GWA_SEPOF
ID   GWA_SEPOF      STANDARD;      PRT;     2 AA.
AC   P83570;
DT   29-MAR-2004 (Rel. 43, Created)
DT   29-MAR-2004 (Rel. 43, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Neuropeptide GWa.
OS   Sepia officinalis (Common cuttlefish).
OC   Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC   Decapodiformes; Sepioidea; Sepiidae; Sepia.
OX   NCBI_TaxID=6610;
RN   [1]
RP   SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND AMIDATION.
RC   TISSUE=Optic lobe;
RX   MEDLINE=98100358; PubMed=9437704; DOI=10.1016/S0196-9781(97)00241-6;
RA   Henry J., Favrel P., Boucaud-Camou E.;
RT   "Isolation and identification of a novel Ala-Pro-Gly-Trp-amide-related
RT   peptide inhibiting the motility of the mature oviduct in the
RT   cuttlefish, Sepia officinalis.";
RL   Peptides 18:1469-1474(1997).
CC   -!- FUNCTION: Regulatory neuropeptide with myotropic activity
CC       targeting the distal oviduct. Inhibits the motility of the oviduct
CC       by decreasing tonus, frequency and amplitude of contractions.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- MASS SPECTROMETRY: MW=259.9; METHOD=MALDI; RANGE=1-2; NOTE=Ref.1.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   MOD_RES       2       2       Tryptophan amide.
SQ   SEQUENCE   2 AA;  261 MW;  7378100000000000 CRC64;

  Query Match             24.0%;  Score 6;  DB 1;  Length 2;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 G 3
              |
Db          1 G 1


RESULT 14
GRWM_HUMAN
ID   GRWM_HUMAN     STANDARD;      PRT;     3 AA.
AC   P01157;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Growth-modulating peptide.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=77162369; PubMed=858356;
RA   Schlesinger D.H., Pickart L., Thaler M.M.;
RT   "Growth-modulating serum tripeptide is glycyl-histidyl-lysine.";
RL   Experientia 33:324-325(1977).
CC   -!- MISCELLANEOUS: This serum tripeptide has been found to stimulate
CC       growth of some cell types and to inhibit other types in vitro.
DR   GO; GO:0001558; P:regulation of cell growth; NAS.
KW   Direct protein sequencing.
SQ   SEQUENCE   3 AA;  340 MW;  6331E81000000000 CRC64;

  Query Match             24.0%;  Score 6;  DB 1;  Length 3;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 G 3
              |
Db          1 G 1


RESULT 15
ACH1_ACHFU
ID   ACH1_ACHFU     STANDARD;      PRT;     4 AA.
AC   P35904;
DT   01-JUN-1994 (Rel. 29, Created)
DT   01-JUN-1994 (Rel. 29, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Achatin-I.
OS   Achatina fulica (Giant African snail).
OC   Eukaryota; Metazoa; Mollusca; Gastropoda; Pulmonata; Stylommatophora;
OC   Sigmurethra; Achatinoidea; Achatinidae; Achatina.
OX   NCBI_TaxID=6530;
RN   [1]
RP   SEQUENCE, CHARACTERIZATION, AND SYNTHESIS.
RC   STRAIN=Ferussac; TISSUE=Ganglion;
RX   MEDLINE=89273551; PubMed=2597281;
RA   Kamatani Y., Minakata H., Kenny P.T.M., Iwashita T., Watanabe K.,
RA   Funase K., Sun X.P., Yongsiri A., Kim K.H., Novales-Li P.,
RA   Novales E.T., Kanapi C.G., Takeuchi H., Nomoto K.;
RT   "Achatin-I, an endogenous neuroexcitatory tetrapeptide from Achatina
RT   fulica Ferussac containing a D-amino acid residue.";
RL   Biochem. Biophys. Res. Commun. 160:1015-1020(1989).
RN   [2]
RP   CHARACTERIZATION.
RC   STRAIN=Ferussac; TISSUE=Heart atrium;
RX   MEDLINE=91264856; PubMed=1675568;
RA   Fujimoto K., Kubota I., Yasuda-Kamatani Y., Minakata H., Nomoto K.,
RA   Yoshida M., Harada A., Muneoka Y., Kobayashi M.;
RT   "Purification of achatin-I from the atria of the African giant snail,
RT   Achatina fulica, and its possible function.";
RL   Biochem. Biophys. Res. Commun. 177:847-853(1991).
RN   [3]
RP   CRISTALLIZATION.
RX   MEDLINE=93014529; PubMed=1399265;
RA   Ishida T., In Y., Doi M., Inoue M., Yasuda-Kamatani Y., Minakata H.,
RA   Iwashita T., Nomoto K.;
RT   "Crystal structure and molecular conformation of achatin-I (H-Gly-D-
RT   Phe-Ala-Asp-OH), an endogenous neuropeptide containing a D-amino acid
RT   residue.";
RL   Int. J. Pept. Protein Res. 39:258-264(1992).
CC   -!- FUNCTION: Neuroexcitatory peptide; increases the impulse frequency
CC       and produces a spike broadening of the identified heart excitatory
CC       neuron (PON); also enhances the amplitude and frequency of the
CC       heart beat. Has also an effect on several other muscles.
DR   PIR; A32480; A32480.
KW   D-amino acid; Direct protein sequencing; Hormone.
FT   MOD_RES       2       2       D-phenylalanine.
SQ   SEQUENCE   4 AA;  408 MW;  6AADD9C810000000 CRC64;

  Query Match             24.0%;  Score 6;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 G 3
              |
Db          1 G 1
```

Search completed: March 23, 2005, 14:49:56
Job time : 112.5 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 23, 2005, 14:20:03 ; Search time 120.5 Seconds
(without alignments)
16.048 Million cell updates/sec

Title: SEQ2
Perfect score: 25
Sequence: 1 fvglm 5

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 45841

Minimum DB seq length: 0
Maximum DB seq length: 5

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_16Dec04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	25	100.0	5	4	AAB82430	Aab82430 Fluorinat
2	25	100.0	5	4	AAB82431	Aab82431 Fluorinat
3	20	80.0	5	2	AAR33009	Aar33009 Alpha-sub
4	20	80.0	5	2	AAR33008	Aar33008 Alpha-sub
5	20	80.0	5	2	AAR33007	Aar33007 Alpha-sub
6	20	80.0	5	2	AAR33010	Aar33010 Alpha-sub
7	20	80.0	5	2	AAW80134	Aaw80134 COOH-term
8	20	80.0	5	2	AAR54549	Aar54549 Cholecyst
9	20	80.0	5	2	AAR54551	Aar54551 Cholecyst
10	20	80.0	5	2	AAR54550	Aar54550 Cholecyst
11	20	80.0	5	2	AAR54548	Aar54548 Cholecyst
12	20	80.0	5	2	AAW41687	Aaw41687 Tetrapept
13	20	80.0	5	2	AAW99643	Aaw99643 Substance
14	20	80.0	5	2	AAY50325	Aay50325 Neutrophi
15	20	80.0	5	2	AAW92660	Aaw92660 Human tac
16	20	80.0	5	3	AAB23028	Aab23028 Mammalian
17	20	80.0	5	3	AAB23025	Aab23025 Human/rat
18	20	80.0	5	3	AAY67576	Aay67576 P antagon
19	20	80.0	5	4	AAB66674	Aab66674 C-termina
20	20	80.0	5	4	AAB91428	Aab91428 Tachykini
21	20	80.0	5	4	AAB70556	Aab70556 Octopus t
22	20	80.0	5	5	AAU10880	Aau10880 Human bet
23	20	80.0	5	5	ABB10088	Abb10088 Substance
24	20	80.0	5	5	AAU77847	Aau77847 Tachykini
25	20	80.0	5	5	AAU77845	Aau77845 Tachykini
26	20	80.0	5	7	ADC64000	Adc64000 Tachykini
27	20	80.0	5	7	ADE94203	Ade94203 High acti
28	20	80.0	5	7	ADF92530	Adf92530 Substance
29	20	80.0	5	8	ADN12180	Adn12180 Tachykini
30	20	80.0	5	8	ADN95078	Adn95078 Mammalian
31	20	80.0	5	8	ADR43774	Adr43774 Mammalian
32	20	80.0	5	8	ADR43771	Adr43771 Human mag
33	19	76.0	4	2	AAW41684	Aaw41684 Tetrapept
34	19	76.0	5	2	AAR27817	Aar27817 SEC bindi
35	19	76.0	5	3	AAB26271	Aab26271 Human alp
36	19	76.0	5	3	AAB26299	Aab26299 Human alp
37	19	76.0	5	5	AAG80461	Aag80461 Enzyme cl
38	18	72.0	4	2	AAW41685	Aaw41685 Tetrapept
39	18	72.0	4	4	AAB91795	Aab91795 Amyloid b
40	18	72.0	4	4	AAB91822	Aab91822 Amyloid b
41	18	72.0	5	4	AAB91821	Aab91821 Amyloid b
42	18	72.0	5	4	AAB91794	Aab91794 Amyloid b
43	17	68.0	5	1	AAP20392	Aap20392 Analgesic
44	17	68.0	5	2	AAW92702	Aaw92702 Human tac
45	17	68.0	5	4	AAG99346	Aag99346 Atypical

ALIGNMENTS

RESULT 1
AAB82430
ID AAB82430 standard; peptide; 5 AA.
XX
AC AAB82430;
XX
DT 22-AUG-2001 (first entry)
XX
DE Fluorinated neurokinin A antagonist intermediate.
XX
KW Neurokinin A; fluorinated peptide; antagonist; immunosuppressive;
KW antiarthritic; antiasthmatic; antiinflammatory; antiarthritic; analgesic;
KW antitumour; anticonvulsant; nootropic; antipsychotic; antimigraine;
KW asthma; therapy.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1. .2
FT /note= "the peptide bond is replaced by CH2-N(CH2CF3)"
FT Modified-site 1
FT /note= "Boc-Phe"
FT Modified-site 5
FT /note= "C-terminal amide"
XX
PN US6218364-B1.
XX
PD 17-APR-2001.
XX
PF 26-APR-1996; 96US-00638407.
XX
PR 20-JUN-1988; 88US-00208926.
PR 24-FEB-1989; 89US-00315202.
PR 23-MAY-1989; 89US-00356031.
PR 17-APR-1991; 91US-00686593.
PR 31-MAY-1991; 91US-00709092.
PR 19-MAR-1993; 93US-00033987.
PR 29-JUL-1994; 94US-00282341.
XX
PA (HARB/) HARBESON S L.
PA (MCCA/) MCCARTHY J R.
XX
PI Harbeson SL, Mccarthy JR;
XX
DR WPI; 2001-366135/38.
XX
PT New peptide derivative useful as immunosuppressants and in treating
PT subjects with various conditions, e.g. asthma.

```
XX
PS   Example 3; Col 20; 25pp; English.
XX
CC   The present sequence is that of a protected peptide produced as an
CC   intermediate in the chemical synthesis of a novel fluorinated neurokinin
CC   A antagonist (AAB82428). Fluorinated neurokinin A antagonists of the
CC   invention are based on the amino acid sequence of neurokinin A, but
CC   include at least 1 modified peptide bond having a reduced amide and a
CC   fluorinated alkyl attached to the N atom of the modified peptide bond.
CC   The neurokinin A antagonists are useful as immunosuppressives and in
CC   treating subjects, including humans, with various conditions, e.g. asthma
CC   (claimed), arthritis, urinary incontinence, pain, inflammation, tumour
CC   growth, gastrointestinal hypermotility, Huntington's disease, psychosis,
CC   neuritis, neuralgia, urticaria, carcinoid syndrome symptoms, influenza,
CC   common cold, and headache including migraine
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 25;  DB 4;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              |||||
Db          1 FVGLM 5


RESULT 2
AAB82431
ID   AAB82431 standard; peptide; 5 AA.
XX
AC   AAB82431;
XX
DT   22-AUG-2001  (first entry)
XX
DE   Fluorinated neurokinin A antagonist intermediate.
XX
KW   Neurokinin A; fluorinated peptide; antagonist; immunosuppressive;
KW   antiarthritic; antiasthmatic; antiinflammatory; antiarthritic; analgesic;
KW   antitumour; anticonvulsant; nootropic; antipsychotic; antimigraine;
KW   asthma; therapy.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1. .2
FT                   /note= "the peptide bond is replaced by CH2-N(CH2CP3)"
FT   Modified-site   5
FT                   /note= "C-terminal amide"
XX
PN   US6218364-B1.
XX
PD   17-APR-2001.
XX
PF   26-APR-1996;   96US-00638407.
XX
PR   20-JUN-1988;   88US-00208926.
PR   24-FEB-1989;   89US-00315202.
PR   23-MAY-1989;   89US-00356031.
PR   17-APR-1991;   91US-00686593.
PR   31-MAY-1991;   91US-00709092.
PR   19-MAR-1993;   93US-00033987.
PR   29-JUL-1994;   94US-00282341.
XX
PA   (HARB/) HARBESON S L.
PA   (MCCA/) MCCARTHY J R.
XX
PI   Harbeson SL,  Mccarthy JR;
XX
DR   WPI; 2001-366135/38.
XX
PT   New peptide derivative useful as immunosuppressants and in treating
PT   subjects with various conditions, e.g. asthma.
```


```
XX
PS   Example 3; Col 20; 25pp; English.
XX
CC   The present sequence is that of a synthetic peptide produced as an
CC   intermediate in the chemical synthesis of a novel fluorinated neurokinin
CC   A antagonist (AAB82428). Fluorinated neurokinin A antagonists of the
CC   invention are based on the amino acid sequence of neurokinin A, but
CC   include at least 1 modified peptide bond having a reduced amide and a
CC   fluorinated alkyl attached to the N atom of the modified peptide bond.
CC   The neurokinin A antagonists are useful as immunosuppressives and in
CC   treating subjects, including humans, with various conditions, e.g. asthma
CC   (claimed), arthritis, urinary incontinence, pain, inflammation, tumour
CC   growth, gastrointestinal hypermotility, Huntington's disease, psychosis,
CC   neuritis, neuralgia, urticaria, carcinoid syndrome symptoms, influenza,
CC   common cold, and headache including migraine
XX
SQ   Sequence 5 AA;

  Query Match             100.0%;  Score 25;  DB 4;  Length 5;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    5;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              |||||
Db          1 FVGLM 5
```


```
RESULT 3
AAR33009
ID   AAR33009 standard; peptide; 5 AA.
XX
AC   AAR33009;
XX
DT   25-MAR-2003  (revised)
DT   02-APR-1993  (first entry)
XX
DE   Alpha-substituted short peptide.
XX
KW   CCK; neuropeptide; endorphin; hormone; LHRH; contraception; analgesia;
KW   improved bioavailability.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   4
FT                   /note= "alpha-Me-Leu"
FT   Modified-site   5
FT                   /note= "Met-NH2"
XX
PN   WO9219254-A1.
XX
PD   12-NOV-1992.
XX
PF   15-APR-1992;   92WO-US003119.
XX
PR   24-APR-1991;   91US-00690755.
PR   20-MAR-1992;   92US-00852086.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Hughes J,  Richardson RS,  Howson W;
XX
DR   WPI; 1992-398522/48.
XX
PT   New alpha-substd. polypeptide are e.g. selective receptor ligands - for
PT   treating inflammation, pain, stroke, ulcers, hypertension, heart failure,
PT   depression, cancer, asthma, psychosis, arthritis, etc.
XX
PS   Claim 3; Page 41; 46pp; English.
XX
CC   The peptide is a specifically claimed example of a group of generically
CC   claimed mono-, di-, tri-, tetra- and penta-peptides which include a
CC   substituent on an alpha-C atom in the chain. Such substitution may modify
```

```
CC   the bioavailability, stability or absorbability of the peptide and hence
CC   may improve the activity of the peptide as a drug. Depending on the
CC   nature of the parent peptide (hormone, endorphin, CCK, NK2, chemotactic
CC   peptide, etc.), the modified peptides are variously useful for treating
CC   obesity, anxiety, gastrointestinal ulcers, pain, stroke, inflammation,
CC   addictive drug withdrawal symptoms, hypertension, heart failure,
CC   cognition or memory disorders, spasticity, depression, diabetes, cancer,
CC   asthma, bladder dysfunction, psychosis and arthritis; and as
CC   contraceptives. (Updated on 25-MAR-2003 to correct PN field.) (Updated on
CC   25-MAR-2003 to correct PD field.) (Updated on 25-MAR-2003 to correct PR
CC   field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 5 AA;

  Query Match             80.0%;  Score 20;  DB 2;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 4
AAR33008
ID   AAR33008 standard; peptide; 5 AA.
XX
AC   AAR33008;
XX
DT   25-MAR-2003  (revised)
DT   02-APR-1993  (first entry)
XX
DE   Alpha-substituted short peptide.
XX
KW   CCK; neuropeptide; endorphin; hormone; LHRH; contraception; analgesia;
KW   improved bioavailability.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   2
FT                   /note= "alpha-Me-Phe"
FT   Modified-site   5
FT                   /note= "Met-NH2"
XX
PN   WO9219254-A1.
XX
PD   12-NOV-1992.
XX
PF   15-APR-1992;   92WO-US003119.
XX
PR   24-APR-1991;   91US-00690755.
PR   20-MAR-1992;   92US-00852086.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Hughes J,  Richardson RS,  Howson W;
XX
DR   WPI; 1992-398522/48.
XX
PT   New alpha-substd. polypeptide are e.g. selective receptor ligands - for
PT   treating inflammation, pain, stroke, ulcers, hypertension, heart failure,
PT   depression, cancer, asthma, psychosis, arthritis, etc.
XX
PS   Claim 3; Page 41; 46pp; English.
XX
CC   The peptide is a specifically claimed example of a group of generically
CC   claimed mono-, di-, tri-, tetra- and penta-peptides which include a
CC   substituent on an alpha-C atom in the chain. Such substitution may modify
CC   the bioavailability, stability or absorbability of the peptide and hence
CC   may improve the activity of the peptide as a drug. Depending on the
CC   nature of the parent peptide (hormone, endorphin, CCK, NK2, chemotactic
CC   peptide, etc.), the modified peptides are variously useful for treating
CC   obesity, anxiety, gastrointestinal ulcers, pain, stroke, inflammation,
CC   addictive drug withdrawal symptoms, hypertension, heart failure,
CC   cognition or memory disorders, spasticity, depression, diabetes, cancer,
CC   asthma, bladder dysfunction, psychosis and arthritis; and as
CC   contraceptives. (Updated on 25-MAR-2003 to correct PN field.) (Updated on
CC   25-MAR-2003 to correct PD field.) (Updated on 25-MAR-2003 to correct PR
CC   field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 5 AA;

  Query Match             80.0%;  Score 20;  DB 2;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 5
AAR33007
ID   AAR33007 standard; peptide; 5 AA.
XX
AC   AAR33007;
XX
DT   25-MAR-2003  (revised)
DT   02-APR-1993  (first entry)
XX
DE   Alpha-substituted short peptide.
XX
KW   CCK; neuropeptide; endorphin; hormone; LHRH; contraception; analgesia;
KW   improved bioavailability.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   1
FT                   /note= "alpha-Me-Phe"
FT   Modified-site   5
FT                   /note= "Met-NH2"
XX
PN   WO9219254-A1.
XX
PD   12-NOV-1992.
XX
PF   15-APR-1992;   92WO-US003119.
XX
PR   24-APR-1991;   91US-00690755.
PR   20-MAR-1992;   92US-00852086.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Hughes J,  Richardson RS,  Howson W;
XX
DR   WPI; 1992-398522/48.
XX
PT   New alpha-substd. polypeptide are e.g. selective receptor ligands - for
PT   treating inflammation, pain, stroke, ulcers, hypertension, heart failure,
PT   depression, cancer, asthma, psychosis, arthritis, etc.
XX
PS   Claim 3; Page 41; 46pp; English.
XX
CC   The peptide is a specifically claimed example of a group of generically
CC   claimed mono-, di-, tri-, tetra- and penta-peptides which include a
CC   substituent on an alpha-C atom in the chain. Such substitution may modify
CC   the bioavailability, stability or absorbability of the peptide and hence
CC   may improve the activity of the peptide as a drug. Depending on the
CC   nature of the parent peptide (hormone, endorphin, CCK, NK2, chemotactic
CC   peptide, etc.), the modified peptides are variously useful for treating
CC   obesity, anxiety, gastrointestinal ulcers, pain, stroke, inflammation,
CC   addictive drug withdrawal symptoms, hypertension, heart failure,
CC   cognition or memory disorders, spasticity, depression, diabetes, cancer,
CC   asthma, bladder dysfunction, psychosis and arthritis; and as
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CC   contraceptives. (Updated on 25-MAR-2003 to correct PN field.) (Updated on
CC   25-MAR-2003 to correct PD field.) (Updated on 25-MAR-2003 to correct PR
CC   field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 5 AA;

  Query Match           80.0%;  Score 20;  DB 2;  Length 5;
  Best Local Similarity  80.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 6
AAR33010
ID   AAR33010 standard; peptide; 5 AA.
XX
AC   AAR33010;
XX
DT   25-MAR-2003  (revised)
DT   02-APR-1993  (first entry)
XX
DE   Alpha-substituted short peptide.
XX
KW   CCK; neuropeptide; endorphin; hormone; LHRH; contraception; analgesia;
KW   improved bioavailability.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   5
FT                   /note= "alpha-Me-Met-NH2"
XX
PN   WO9219254-A1.
XX
PD   12-NOV-1992.
XX
PF   15-APR-1992;   92WO-US003119.
XX
PR   24-APR-1991;   91US-00690755.
PR   20-MAR-1992;   92US-00852086.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Hughes J,  Richardson RS,  Howson W;
XX
DR   WPI; 1992-398522/48.
XX
PT   New alpha-substd. polypeptide are e.g. selective receptor ligands - for
PT   treating inflammation, pain, stroke, ulcers, hypertension, heart failure,
PT   depression, cancer, asthma, psychosis, arthritis, etc.
XX
PS   Claim 3; Page 41; 46pp; English.
XX
CC   The peptide is a specifically claimed example of a group of generically
CC   claimed mono-, di-, tri-, tetra- and penta-peptides which include a
CC   substituent on an alpha-C atom in the chain. Such substitution may modify
CC   the bioavailability, stability or absorbability of the peptide and hence
CC   may improve the activity of the peptide as a drug. Depending on the
CC   nature of the parent peptide (hormone, endorphin, CCK, NK2, chemotactic
CC   peptide, etc.), the modified peptides are variously useful for treating
CC   obesity, anxiety, gastrointestinal ulcers, pain, stroke, inflammation,
CC   addictive drug withdrawal symptoms, hypertension, heart failure,
CC   cognition or memory disorders, spasticity, depression, diabetes, cancer,
CC   asthma, bladder dysfunction, psychosis and arthritis; and as
CC   contraceptives. (Updated on 25-MAR-2003 to correct PN field.) (Updated on
CC   25-MAR-2003 to correct PD field.) (Updated on 25-MAR-2003 to correct PR
CC   field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ   Sequence 5 AA;

  Query Match           80.0%;  Score 20;  DB 2;  Length 5;
  Best Local Similarity  80.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 7
AAW80134
ID   AAW80134 standard; peptide; 5 AA.
XX
AC   AAW80134;
XX
DT   17-DEC-1998  (first entry)
XX
DE   COOH-terminal sequence of the tachykinin family.
XX
KW   Human; neurokinin receptor; NK-2; neurokinin A neurotransmitter;
KW   abnormal smooth muscle cell contraction; asthma; PCR primer;
KW   gastrointestinal disorder; peptic ulcer; ulcerative colitis.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 2
FT                   /note= "Phe, Tyr, Val or Ile"
XX
PN   WO9216220-A1.
XX
PD   01-OCT-1992.
XX
PF   13-MAR-1992;   92WO-US002017.
XX
PR   15-MAR-1991;   91US-00670066.
XX
PA   (CHIL-) CHILDRENS MEDICAL CENT.
XX
PI   Gerard NP,  Gerard C;
XX
DR   WPI; 1992-348932/42.
XX
PT   Human recombinant neurokinin NK-2 receptor - antagonises interaction of
PT   neurokinin A and its receptor, useful for treating asthma and ulcerative
PT   colitis, etc.
XX
PS   Disclosure; Page 1; 43pp; English.
XX
CC   The present sequence represents the COOH-terminal sequence of the
CC   tachykinin family. The specification desrcibes a human recombinant
CC   neurokinin (NK-2) receptor protein. The human NK-2 receptor gene was
CC   cloned from human tracheal tissue from an individual with cystic
CC   fibrosis. The coding sequence is interrupted by four introns. The protein
CC   can be used to screen for compounds that antagonise the interaction
CC   between neurokinin A neurotransmitter and its NK-2 receptor. The protein
CC   is thus useful for treating disorders associated with abnormal smooth
CC   muscle cell contraction, particularly asthma and gastrointestinal
CC   disorders such as peptic ulcers and ulcerative colitis
XX
SQ   Sequence 5 AA;

  Query Match           80.0%;  Score 20;  DB 2;  Length 5;
  Best Local Similarity  80.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 8
AAR54549
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ID   AAR54549 standard; peptide; 5 AA.
XX
AC   AAR54549;
XX
DT   25-MAR-2003  (revised)
DT   14-DEC-1994  (first entry)
XX
DE   Cholecystokinin analogue peptide #42.
XX
KW   Peptide analogue; peptoid; cholecystokinin; CCK; obesity; anxiety;
KW   gastrointestinal ulcers; pain; stroke; inflammation; hypertension;
KW   heart failure; cognition; memory enhancement; spasticity; depression;
KW   diabetes; cancers; asthma; bladder dysfunction; psychosis; arthritis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   2
FT                   /label= MePhe
FT   Modified-site   5
FT                   /note= "Amidated C-terminal"
XX
PN   WO9409031-A1.
XX
PD   28-APR-1994.
XX
PF   14-OCT-1993;    93WO-US009809.
XX
PR   19-OCT-1992;    92US-00963169.
PR   08-OCT-1993;    93US-00131693.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Howson W,  Hugues J,  Richardson RS;
XX
DR   WPI; 1994-151243/18.
XX
PT   New cholecystokinin analogues - useful e.g. in treatment of pain,
PT   obesity, stroke, anxiety, and gastrointestinal ulcers.
XX
PS   Claim 3; Page 66; 73pp; English.
XX
CC   The sequences given in AAR53117-38 and AAR54530-51 are peptide analogues
CC   of cholecystokinin (CCK) which can be used to treat obesity, anxiety,
CC   gastrointestinal ulcers, pain, stroke, inflammation, hypertension, heart
CC   failure, cognition, memory enhancement, spasticity, depression, diabetes,
CC   cancers, asthma, bladder dysfunction, psychosis, arthritis and in the
CC   treatment of substance withdrawl. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 5 AA;

  Query Match             80.0%;  Score 20;  DB 2;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 9
AAR54551
ID   AAR54551 standard; peptide; 5 AA.
XX
AC   AAR54551;
XX
DT   25-MAR-2003  (revised)
DT   14-DEC-1994  (first entry)
XX
DE   Cholecystokinin analogue peptide #44.
XX
KW   Peptide analogue; peptoid; cholecystokinin; CCK; obesity; anxiety;
KW   gastrointestinal ulcers; pain; stroke; inflammation; hypertension;
KW   heart failure; cognition; memory enhancement; spasticity; depression;
KW   diabetes; cancers; asthma; bladder dysfunction; psychosis; arthritis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   5
FT                   /label= MeMet
FT                   /note= "Amidated C-terminal"
XX
PN   WO9409031-A1.
XX
PD   28-APR-1994.
XX
PF   14-OCT-1993;    93WO-US009809.
XX
PR   19-OCT-1992;    92US-00963169.
PR   08-OCT-1993;    93US-00131693.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Horwell DC,  Howson W,  Hugues J,  Richardson RS;
XX
DR   WPI; 1994-151243/18.
XX
PT   New cholecystokinin analogues - useful e.g. in treatment of pain,
PT   obesity, stroke, anxiety, and gastrointestinal ulcers.
XX
PS   Claim 3; Page 66; 73pp; English.
XX
CC   The sequences given in AAR53117-38 and AAR54530-51 are peptide analogues
CC   of cholecystokinin (CCK) which can be used to treat obesity, anxiety,
CC   gastrointestinal ulcers, pain, stroke, inflammation, hypertension, heart
CC   failure, cognition, memory enhancement, spasticity, depression, diabetes,
CC   cancers, asthma, bladder dysfunction, psychosis, arthritis and in the
CC   treatment of substance withdrawl. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 5 AA;

  Query Match             80.0%;  Score 20;  DB 2;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 10
AAR54550
ID   AAR54550 standard; peptide; 5 AA.
XX
AC   AAR54550;
XX
DT   25-MAR-2003  (revised)
DT   14-DEC-1994  (first entry)
XX
DE   Cholecystokinin analogue peptide #43.
XX
KW   Peptide analogue; peptoid; cholecystokinin; CCK; obesity; anxiety;
KW   gastrointestinal ulcers; pain; stroke; inflammation; hypertension;
KW   heart failure; cognition; memory enhancement; spasticity; depression;
KW   diabetes; cancers; asthma; bladder dysfunction; psychosis; arthritis.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   3
FT                   /label= MeLeu
FT   Modified-site   5
FT                   /note= "Amidated C-terminal"
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XX
PN WO9409031-A1.
XX
PD 28-APR-1994.
XX
PF 14-OCT-1993; 93WO-US009809.
XX
PR 19-OCT-1992; 92US-00963169.
PR 08-OCT-1993; 93US-00131693.
XX
PA (WARN) WARNER LAMBERT CO.
XX
PI Horwell DC, Howson W, Hugues J, Richardson RS;
XX
DR WPI; 1994-151243/18.
XX
PT New cholecystokinin analogues - useful e.g. in treatment of pain,
PT obesity, stroke, anxiety, and gastrointestinal ulcers.
XX
PS Claim 3; Page 66; 73pp; English.
XX
CC The sequences given in AAR53117-38 and AAR54530-51 are peptide analogues
CC of cholecystokinin (CCK) which can be used to treat obesity, anxiety,
CC gastrointestinal ulcers, pain, stroke, inflammation, hypertension, heart
CC failure, cognition, memory enhancement, spasticity, depression, diabetes,
CC cancers, asthma, bladder dysfunction, psychosis, arthritis and in the
CC treatment of substance withdrawl. (Updated on 25-MAR-2003 to correct PN
CC field.)
XX
SQ Sequence 5 AA;

Query Match 80.0%; Score 20; DB 2; Length 5;
Best Local Similarity 80.0%; Pred. No. 1.8e+06;
Matches 4; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 FVGLM 5
| |||
Db 1 FFGLM 5

RESULT 11
AAR54548
ID AAR54548 standard; peptide; 5 AA.
XX
AC AAR54548;
XX
DT 25-MAR-2003 (revised)
DT 14-DEC-1994 (first entry)
XX
DE Cholecystokinin analogue peptide #41.
XX
KW Peptide analogue; peptoid; cholecystokinin; CCK; obesity; anxiety;
KW gastrointestinal ulcers; pain; stroke; inflammation; hypertension;
KW heart failure; cognition; memory enhancement; spasticity; depression;
KW diabetes; cancers; asthma; bladder dysfunction; psychosis; arthritis.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1
FT /label= MePhe
FT Modified-site 5
FT /note= "Amidated C-terminal"
XX
PN WO9409031-A1.
XX
PD 28-APR-1994.
XX
PF 14-OCT-1993; 93WO-US009809.
XX
PR 19-OCT-1992; 92US-00963169.
PR 08-OCT-1993; 93US-00131693.
XX
PA (WARN) WARNER LAMBERT CO.
XX
PI Horwell DC, Howson W, Hugues J, Richardson RS;
XX
DR WPI; 1994-151243/18.
XX
PT New cholecystokinin analogues - useful e.g. in treatment of pain,
PT obesity, stroke, anxiety, and gastrointestinal ulcers.
XX
PS Claim 3; Page 66; 73pp; English.
XX
CC The sequences given in AAR53117-38 and AAR54530-51 are peptide analogues
CC of cholecystokinin (CCK) which can be used to treat obesity, anxiety,
CC gastrointestinal ulcers, pain, stroke, inflammation, hypertension, heart
CC failure, cognition, memory enhancement, spasticity, depression, diabetes,
CC cancers, asthma, bladder dysfunction, psychosis, arthritis and in the
CC treatment of substance withdrawl. (Updated on 25-MAR-2003 to correct PN
CC field.)
XX
SQ Sequence 5 AA;

Query Match 80.0%; Score 20; DB 2; Length 5;
Best Local Similarity 80.0%; Pred. No. 1.8e+06;
Matches 4; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 FVGLM 5
| |||
Db 1 FFGLM 5

RESULT 12
AAW41687
ID AAW41687 standard; peptide; 5 AA.
XX
AC AAW41687;
XX
DT 09-JUN-1998 (first entry)
XX
DE Tetrapeptide #4.
XX
KW Ophthalmic drug; corneal disorder; ulcer; epithelial peeling; dry eye;
KW keratitis; insulin like growth factor-I; IGF-I; eye drop.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 5
FT /note= "C-terminal amide"
XX
PN WO9749419-A1.
XX
PD 31-DEC-1997.
XX
PF 11-JUN-1997; 97WO-JP002015.
XX
PR 26-JUN-1996; 96JP-00165612.
XX
PA (SANT) SANTEN PHARM CO LTD.
XX
PI Nishida T, Nakamura M, Nakata K;
XX
DR WPI; 1998-076907/07.
XX
PT Ophthalmic drug composition containing tetra:peptide - is useful as
PT corneal disorder remedy for corneal ulcer, corneal epithelial peeling,
PT dry eye, keratitis.
XX
PS Disclosure; Page 11; 19pp; Japanese.
XX
CC This sequence is shown in the specification. The invention relates to an
CC ophthalmic drug composition which contains Phe-Gly-Leu-Met-NH2 or its
CC medicinally acceptable salts as the active ingredient. It is used,
CC together with insulin like growth factor-I (IGF-I), to treat corneal

```
CC   disorders such as corneal ulcer, corneal epithelial peeling, dry eye and
CC   keratitis. The dosage is 0.1-5000 (preferably 1-1000) mg/day of the
CC   active ingredient and 0.001-100 (preferably 0.01-10) mg/day of IGF-I. The
CC   preferable form of the composition is eye drops
XX
SQ   Sequence 5 AA;

  Query Match             80.0%;  Score 20;  DB 2;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 13
AAW99643
ID   AAW99643 standard; peptide; 5 AA.
XX
AC   AAW99643;
XX
DT   21-MAY-1999  (first entry)
XX
DE   Substance P analogue peptide.
XX
KW   Substance P; myoblast transfer therapy; pain relief; analgesic;
KW   behavioural abnormality; perceptive abnormality; opioid receptor;
KW   psychiatric condition; depression; chronic anxiety syndrome; paranoia;
KW   alcoholism; drug addiction; chronic pain; neuron.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   EP898967-A1.
XX
PD   03-MAR-1999.
XX
PF   07-APR-1998;   98EP-00201068.
XX
PR   11-AUG-1997;   97US-0055199P.
XX
PA   (CELL-) CELL THERAPY RES FOUND.
XX
PI   Law PK;
XX
DR   WPI; 1999-144555/13.
XX
PT   New composition for supplying peptide to opioid receptor - comprises
PT   myogenic cells containing heterologous DNA encoding peptide and carrier.
XX
PS   Claim 8; Page 8; 11pp; English.
XX
CC   A composition has been developed for supplying a peptide to an opioid
CC   receptor or that interferes with binding of substance P to its receptor.
CC   The composition comprises: (a) myogenic cells that contain heterologous
CC   DNA encoding the peptide to express the peptide; and (b) a
CC   pharmaceutically acceptable carrier. The composition is useful for
CC   relieving pain and for treating behavioural and perceptive abnormalities
CC   using myoblast transfer therapy. It is useful in a method for treating
CC   psychiatric conditions that involve abnormal perception e.g. depression,
CC   chronic anxiety syndromes, paranoia, alcoholism and drug addiction,
CC   chronic pain and other diseases in which opioid neurons and substance P
CC   sensitive neurons play a role. The composition provides a continuous,
CC   long term supply of opioid peptides (long-term analgesia) which lasts for
CC   up to at least 6 years. The present sequence represents a specifically
CC   claimed substance P analogue
XX
SQ   Sequence 5 AA;

  Query Match             80.0%;  Score 20;  DB 2;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 14
AAY50325
ID   AAY50325 standard; peptide; 5 AA.
XX
AC   AAY50325;
XX
DT   12-JAN-2000  (first entry)
XX
DE   Neutrophil-activating pancreatic derived peptide 125.
XX
KW   Cell activation; pancreas; treatment; cardiovascular disease; trauma;
KW   inflammatory disease; autoimmune diseases; arthritis; diabetes; stroke;
KW   organ rejection; ischemia; Alzheimer's disease; myocardial infarction;
KW   haemorrhagic shock; diabetic retinopathy; venous insufficiency; angina;
KW   trauma; protease inhibitor; hypertension; sepsis.
XX
OS   Unidentified.
XX
PN   WO9946367-A2.
XX
PD   16-SEP-1999.
XX
PF   11-MAR-1999;   99WO-US005247.
XX
PR   11-MAR-1998;   98US-00038894.
XX
PA   (CELL-) CELL ACTIVATION INC.
PA   (REGC ) UNIV CALIFORNIA.
PA   (SCRI ) SCRIPPS RES INST.
XX
PI   Stoughton RB,  Schmid-Schonbein GW,  Hugli TE,  Kistler E;
XX
DR   WPI; 1999-580234/49.
XX
PT   Use of cell activating compositions in developing products for diagnosis
PT   and treatment of e.g. cardiovascular, inflammatory, autoimmune or
PT   Alzheimer's disease, trauma, arthritis, organ rejection, diabetes, stroke
PT   or ischemia.
XX
PS   Example 9; Page 184; 184pp; English.
XX
CC   This invention describes a novel method for the use and preparation of
CC   cell activating compositions which involves preparing a cell activating
CC   composition comprising (a) homogenizing pancreatic tissue in buffer at
CC   about neutral or higher pH to produce a homogenate; (b) removing
CC   particulates from the homogenate; (c) optionally incubating the resulting
CC   homogenate, with particulates removed, with a protease; and (d)
CC   fractionating the homogenate and selecting fractions that exhibit cell
CC   activation activity. The methods can be used for improving treatment
CC   outcome or reducing risk of treatment of e.g. cardiovascular disease,
CC   inflammatory disease, trauma, autoimmune diseases, arthritis, organ
CC   rejection, diabetes and diabetic complications, stroke, ischemia,
CC   Alzheimer's disease, myocardial infarction, haemorrhagic shock, diabetic
CC   retinopathy, diabetes, venous insufficiency, unstable angina or trauma.
CC   They can be used in the veterinary treatment of a non-human subject.
CC   Protease inhibitors can be used to lower cell activation resulting from
CC   these diseases and deficiencies. The detection of an elevated level of
CC   hydrogen peroxide can be used to detect an inflammatory condition. An
CC   elevated level of hydrogen peroxide in plasma or whole blood and in the
CC   presence of superoxide dismutase (SOD) indicates leukocyte up regulation,
CC   e.g. indicative of the onset of an acute cardiovascular disorders, such
CC   as disease onset or ischemic complications. An elevated level of hydrogen
CC   peroxide in plasma or whole blood and a low level in the presence of SOD
CC   is indicative of a chronic or immune compromised condition e.g.
CC   hypertension or sepsis. AAY50201-Y50334 represent peptides used in the
CC   method of the invention
XX
```

```
SQ   Sequence 5 AA;

  Query Match             80.0%;  Score 20;  DB 2;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 15
AAW92660
ID   AAW92660 standard; peptide; 5 AA.
XX
AC   AAW92660;
XX
DT   20-MAR-2003  (revised)
DT   30-APR-1999  (first entry)
XX
DE   Human tachykinin agonist beta-amyloid peptide fragment #6.
XX
KW   Tachykinin agonist; beta-amyloid; inhibition; neurotoxin; treatment;
KW   Alzheimer's disease; Down's syndrome; amyloidosis; human;
KW   hereditary cerebral haemorrhage; non-inherited congophilic angiopathy.
XX
OS   Homo sapiens.
XX
PN   US5876948-A.
XX
PD   02-MAR-1999.
XX
PF   29-JUL-1991;   91US-00737371.
XX
PR   27-JUL-1990;   90US-00559173.
XX
PA   (CHIL-) CHILDRENS MEDICAL CENT.
XX
PI   Yankner BA;
XX
DR   WPI; 1999-189630/16.
XX
PT   Screening for neurotoxin inhibitors - by testing compounds for their
PT   effect on beta-amyloid peptide neurotoxic effect on neuronal cells.
XX
PS   Disclosure; Col 13-14; 28pp; English.
XX
CC   This invention describes a method for screening compounds for inhibiting
CC   a neurotoxin. The method involves incubating tachykinin agonists with
CC   neuronal cells and a beta-amyloid peptide neurotoxin. The methods can be
CC   used for identifying compounds for treating diseases characterised by an
CC   undesirable build up of beta-amyloid protein, e.g. Alzheimer's disease,
CC   Down's syndrome, and the syndromes of hereditary cerebral haemorrhage
CC   with amyloidosis and non-inherited congophilic angiopathy with cerebral
CC   haemorrhage. AAW92655-W92731 are tachykinin agonists derived from human
CC   beta-amyloid peptide fragments. (Updated on 20-MAR-2003 to correct PF
CC   field.)
XX
SQ   Sequence 5 AA;

  Query Match             80.0%;  Score 20;  DB 2;  Length 5;
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Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


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GenCore version 5.1.6

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Title: SEQ2
Perfect score: 25
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Searched: 1407402 seqs, 331100923 residues

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Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	20	80.0	5	9	US-09-265-690C-1	Sequence 1, Appli
2	20	80.0	5	9	US-09-265-690C-4	Sequence 4, Appli
3	20	80.0	5	14	US-10-230-133-4	Sequence 4, Appli
4	20	80.0	5	14	US-10-053-669-1	Sequence 1, Appli
5	20	80.0	5	14	US-10-053-669-4	Sequence 4, Appli
6	20	80.0	5	15	US-10-134-187-3	Sequence 3, Appli
7	20	80.0	5	16	US-10-688-741-3	Sequence 3, Appli
8	20	80.0	5	16	US-10-695-536-4	Sequence 4, Appli
9	20	80.0	5	16	US-10-805-881-1	Sequence 1, Appli
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12	17	68.0	5	14	US-10-168-789A-32	Sequence 32, Appl
13	17	68.0	5	17	US-10-497-628-16	Sequence 16, Appl
14	16	64.0	4	8	US-08-484-409-30	Sequence 30, Appl
15	16	64.0	4	13	US-10-033-026-2	Sequence 2, Appli
16	16	64.0	5	10	US-09-992-124A-14	Sequence 14, Appl
17	16	64.0	5	14	US-10-168-789A-39	Sequence 39, Appl
18	16	64.0	5	17	US-10-641-286-27	Sequence 27, Appl
19	15	60.0	3	14	US-10-230-133-2	Sequence 2, Appli
20	15	60.0	3	16	US-10-695-536-2	Sequence 2, Appli
21	15	60.0	4	9	US-09-265-690C-2	Sequence 2, Appli
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27	15	60.0	4	17	US-10-821-240A-270	Sequence 270, App
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29	15	60.0	5	15	US-10-243-613-79	Sequence 79, Appl
30	15	60.0	5	16	US-10-128-520-360	Sequence 360, App
31	15	60.0	5	16	US-10-346-737A-30	Sequence 30, Appl
32	15	60.0	5	17	US-10-497-628-17	Sequence 17, Appl
33	15	60.0	5	17	US-10-641-286-13	Sequence 13, Appl
34	14	56.0	4	9	US-09-943-123-24	Sequence 24, Appl
35	14	56.0	4	14	US-10-087-402-10	Sequence 10, Appl
36	14	56.0	4	14	US-10-361-290-12	Sequence 12, Appl
37	14	56.0	4	17	US-10-712-359A-24	Sequence 24, Appl
38	14	56.0	4	17	US-10-821-240A-244	Sequence 244, App
39	14	56.0	5	13	US-10-014-716-28	Sequence 28, Appl
40	14	56.0	5	14	US-10-190-951-28	Sequence 28, Appl
41	14	56.0	5	14	US-10-190-082-680	Sequence 680, App
42	14	56.0	5	15	US-10-299-867-67	Sequence 67, Appl
43	14	56.0	5	15	US-10-454-566-10	Sequence 10, Appl
44	14	56.0	5	15	US-10-436-549-565	Sequence 565, App
45	14	56.0	5	16	US-10-712-425-565	Sequence 565, App

ALIGNMENTS

RESULT 1
US-09-265-690C-1
; Sequence 1, Application US/09265690C
; Publication No. US20010051345A1
; GENERAL INFORMATION:
; APPLICANT: Wells, Ibert
; TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound M
; TITLE OF INVENTION: for Disease Diagnosis
; FILE REFERENCE: 1427001
; CURRENT APPLICATION NUMBER: US/09/265,690C
; CURRENT FILING DATE: 1999-03-10
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1
; LENGTH: 5
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (5)..(5)
; OTHER INFORMATION: AMIDATION
US-09-265-690C-1

Query Match 80.0%; Score 20; DB 9; Length 5;
Best Local Similarity 80.0%; Pred. No. 1.3e+06;
Matches 4; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Qy          1 FVGLM 5
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Db          1 FFGLM 5
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RESULT 2
US-09-265-690C-4
; Sequence 4, Application US/09265690C
; Publication No. US20010051345A1

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; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound Ma
;  TITLE OF INVENTION:  for Disease Diagnosis
;  FILE REFERENCE: 1427001
;  CURRENT APPLICATION NUMBER: US/09/265,690C
;  CURRENT FILING DATE:  1999-03-10
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (5)..(5)
;   OTHER INFORMATION: AMIDATION
;   NAME/KEY: VARIANT
;   LOCATION: (2)..(2)
;   OTHER INFORMATION: "X" may be either Phe or Val.
US-09-265-690C-4

  Query Match             80.0%;  Score 20;  DB 9;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 3
US-10-230-133-4
; Sequence 4, Application US/10230133
; Publication No. US20030040625A1
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Antagonists of the magnesium binding defect as therapy agents and
;  TITLE OF INVENTION:  methods for treatment of abnormal physiological states
;  FILE REFERENCE: 2892-106
;  CURRENT APPLICATION NUMBER: US/10/230,133
;  CURRENT FILING DATE:  2002-08-29
;  PRIOR APPLICATION NUMBER: 09/635,266
;  PRIOR FILING DATE: 2000-08-09
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (5)..(5)
;   OTHER INFORMATION: AMIDATION
;   FEATURE:
;   NAME/KEY: VARIANT
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;   OTHER INFORMATION: "X" may be either F or V.
US-10-230-133-4

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Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 4
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; Sequence 1, Application US/10053669
; Publication No. US20030077658A1
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound Ma
;  TITLE OF INVENTION:  for Disease Diagnosis
;  FILE REFERENCE: N1427-005
;  CURRENT APPLICATION NUMBER: US/10/053,669
;  CURRENT FILING DATE:  2002-01-24
;  PRIOR APPLICATION NUMBER: 09/265,690
;  PRIOR FILING DATE: 1999-03-10
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (5)..(5)
;   OTHER INFORMATION: AMIDATION
US-10-053-669-1

  Query Match             80.0%;  Score 20;  DB 14;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 5
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; Sequence 4, Application US/10053669
; Publication No. US20030077658A1
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound Ma
;  TITLE OF INVENTION:  for Disease Diagnosis
;  FILE REFERENCE: N1427-005
;  CURRENT APPLICATION NUMBER: US/10/053,669
;  CURRENT FILING DATE:  2002-01-24
;  PRIOR APPLICATION NUMBER: 09/265,690
;  PRIOR FILING DATE: 1999-03-10
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (5)..(5)
;   OTHER INFORMATION: AMIDATION
;   NAME/KEY: VARIANT
;   LOCATION: (2)..(2)
;   OTHER INFORMATION: "X" may be either Phe or Val.
US-10-053-669-4

  Query Match             80.0%;  Score 20;  DB 14;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 6
US-10-134-187-3
; Sequence 3, Application US/10134187
; Publication No. US20030202981A1
; GENERAL INFORMATION:
;  APPLICANT: Kream, Richard M.
```

```
;  APPLICANT:  Kream, Richard M.
;  APPLICANT:  Kream, Richard M.
;  TITLE OF INVENTION: Chimeric Hybrid Analgesics
;  FILE REFERENCE: Kream
;  CURRENT APPLICATION NUMBER: US/10/134,187
;  CURRENT FILING DATE:  2002-04-26
;  NUMBER OF SEQ ID NOS: 3
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: mammalian
US-10-134-187-3

  Query Match             80.0%;  Score 20;  DB 15;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 7
US-10-688-741-3
; Sequence 3, Application US/10688741
; Publication No. US20040106636A1
; GENERAL INFORMATION:
;  APPLICANT: Kream, Richard M.
;  APPLICANT:  Kream, Richard M.
;  APPLICANT:  Kream, Richard M.
;  TITLE OF INVENTION: Method Of Inhibiting Opioid Tolerance Development With Chimeric H
;  TITLE OF INVENTION:  Analgesics
;  FILE REFERENCE: Kream
;  CURRENT APPLICATION NUMBER: US/10/688,741
;  CURRENT FILING DATE:  2003-10-17
;  NUMBER OF SEQ ID NOS: 3
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: mammalian
US-10-688-741-3

  Query Match             80.0%;  Score 20;  DB 16;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 8
US-10-695-536-4
; Sequence 4, Application US/10695536
; Publication No. US20040110692A1
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert  Clifton
;  TITLE OF INVENTION: Antagonists of the Magnesium Binding Defect as Therapeutic Agents
;  TITLE OF INVENTION:  and Methods for Treatment of Abnormal Physiological States
;  FILE REFERENCE: 800812-0008
;  CURRENT APPLICATION NUMBER: US/10/695,536
;  CURRENT FILING DATE:  2003-10-28
;  PRIOR APPLICATION NUMBER: US 10/230,133
;  PRIOR FILING DATE: 2002-08-29
;  PRIOR APPLICATION NUMBER: US 09/635,266
;  PRIOR FILING DATE: 2000-08-09
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 4
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MISC_FEATURE
;   LOCATION: (2)..(2)
;   OTHER INFORMATION: X can be either F or V
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (5)..(5)
;   OTHER INFORMATION: AMIDATION
US-10-695-536-4

  Query Match             80.0%;  Score 20;  DB 16;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 9
US-10-805-881-1
; Sequence 1, Application US/10805881
; Publication No. US20040171093A1
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert C.
;  TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound
;  TITLE OF INVENTION:  Magnesium for Disease Diagnosis
;  FILE REFERENCE: 800812-0005
;  CURRENT APPLICATION NUMBER: US/10/805,881
;  CURRENT FILING DATE:  2004-03-22
;  PRIOR APPLICATION NUMBER: US 10/053,669
;  PRIOR FILING DATE: 2002-01-24
;  PRIOR APPLICATION NUMBER: US 10/695,536
;  PRIOR FILING DATE: 2003-10-28
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (5)..(5)
;   OTHER INFORMATION: AMIDATION
US-10-805-881-1

  Query Match             80.0%;  Score 20;  DB 16;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 10
US-10-805-881-4
; Sequence 4, Application US/10805881
; Publication No. US20040171093A1
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert C.
;  TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound
;  TITLE OF INVENTION:  Magnesium for Disease Diagnosis
;  FILE REFERENCE: 800812-0005
;  CURRENT APPLICATION NUMBER: US/10/805,881
;  CURRENT FILING DATE:  2004-03-22
;  PRIOR APPLICATION NUMBER: US 10/053,669
;  PRIOR FILING DATE: 2002-01-24
;  PRIOR APPLICATION NUMBER: US 10/695,536
;  PRIOR FILING DATE: 2003-10-28
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.2
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; SEQ ID NO 4
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MISC_FEATURE
;   LOCATION: (2)..(2)
;   OTHER INFORMATION: "X" may be either F or V
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (5)..(5)
;   OTHER INFORMATION: AMIDATION
US-10-805-881-4

  Query Match             80.0%;  Score 20;  DB 16;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 11
US-10-497-628-15
; Sequence 15, Application US/10497628
; Publication No. US20050009752A1
; GENERAL INFORMATION:
;  APPLICANT: Teruo Nishida
;  APPLICANT:  Makoto Inui
;  APPLICANT:  Masatsugu Nakamura
;  TITLE OF INVENTION: NOVEL PEPTIDE AND PHARMACEUTICAL USE OF THE SAME
;  FILE REFERENCE: 04355/HG
;  CURRENT APPLICATION NUMBER: US/10/497,628
;  CURRENT FILING DATE:  2004-06-03
;  PRIOR APPLICATION NUMBER: JP 2001-368103
;  PRIOR FILING DATE: 2001-12-01
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 15
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Human
US-10-497-628-15

  Query Match             80.0%;  Score 20;  DB 17;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 12
US-10-168-789A-32
; Sequence 32, Application US/10168789A
; Publication No. US20030148943A1
; GENERAL INFORMATION:
;  APPLICANT: ITOH, Yasuaki
;  APPLICANT:  NISHI, Kazunori
;  APPLICANT:  KITADA, Chieko
;  APPLICANT:  INATOMI, No. US20030148943A1uhiro
;  TITLE OF INVENTION: No. US20030148943A1el Tachykinin-like Polypeptides and Use Therec
;  FILE REFERENCE: 2680US0P
;  CURRENT APPLICATION NUMBER: US/10/168,789A
;  CURRENT FILING DATE:  2002-06-20
;  PRIOR APPLICATION NUMBER: PCT/JP00/09083
;  PRIOR FILING DATE: 2000-12-21
;  PRIOR APPLICATION NUMBER: JP 11-362638
;  PRIOR FILING DATE: 1999-12-21
;  PRIOR APPLICATION NUMBER: JP 12-066714
;  PRIOR FILING DATE: 1999-03-10
;  NUMBER OF SEQ ID NOS: 64
; SEQ ID NO 32
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Artificial Polypeptide
;   FEATURE:
;   NAME/KEY: PEPTIDE
;   LOCATION: (02)..(02)
;   OTHER INFORMATION: Xaa is any amino acid
US-10-168-789A-32

  Query Match             68.0%;  Score 17;  DB 14;  Length 5;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+06;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | ||:
Db          1 FXGLL 5


RESULT 13
US-10-497-628-16
; Sequence 16, Application US/10497628
; Publication No. US20050009752A1
; GENERAL INFORMATION:
;  APPLICANT: Teruo Nishida
;  APPLICANT:  Makoto Inui
;  APPLICANT:  Masatsugu Nakamura
;  TITLE OF INVENTION: NOVEL PEPTIDE AND PHARMACEUTICAL USE OF THE SAME
;  FILE REFERENCE: 04355/HG
;  CURRENT APPLICATION NUMBER: US/10/497,628
;  CURRENT FILING DATE:  2004-06-03
;  PRIOR APPLICATION NUMBER: JP 2001-368103
;  PRIOR FILING DATE: 2001-12-01
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 16
;   LENGTH: 5
;   TYPE: PRT
;   ORGANISM: Human
US-10-497-628-16

  Query Match             68.0%;  Score 17;  DB 17;  Length 5;
  Best Local Similarity   60.0%;  Pred. No. 1.3e+06;
  Matches    3;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              : |||
Db          1 YFGLM 5


RESULT 14
US-08-484-409-30
; Sequence 30, Application US/08484409
; Publication No. US20020076412A1
;  GENERAL INFORMATION:
;    APPLICANT:  Steinman, Lawrence
;    APPLICANT:  Zamvil, Scott
;    TITLE OF INVENTION:  METHODS FOR MODULATING THE IMMUNE SYSTEM
;    NUMBER OF SEQUENCES:  52
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  SEED and BERRY LLP
;      STREET:  6300 Columbia Center, 701 Fifth Avenue
;      CITY:  Seattle
;      STATE:  Washington
;      COUNTRY:  USA
;      ZIP:  98104-7092
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
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;       SOFTWARE:  PatentIn Release #1.0, Version #1.30
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/484,409
;       FILING DATE:  07-JUN-1995
;       CLASSIFICATION:  424
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Maki, David J.
;       REGISTRATION NUMBER:  31,392
;       REFERENCE/DOCKET NUMBER:  690068.409C1
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (206) 622-4900
;       TELEFAX:  (206) 682-6031
;   INFORMATION FOR SEQ ID NO:  30:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  4 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:
;       TOPOLOGY:  linear
US-08-484-409-30

  Query Match             64.0%;  Score 16;  DB 8;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+06;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FVG 3
              |||
Db          2 FVG 4


RESULT 15
US-10-033-026-2
; Sequence 2, Application US/10033026
; Publication No. US20020147309A1
; GENERAL INFORMATION:
;  APPLICANT: Lipscombe, Diane
;  APPLICANT:  Schorge, Stephanie
;  TITLE OF INVENTION: HUMAN N-TYPE CALCIUM CHANNEL ISOFORM AND USES THEREOF
;  FILE REFERENCE: B1055/7000
;  CURRENT APPLICATION NUMBER: US/10/033,026
;  CURRENT FILING DATE:  2001-12-28
;  PRIOR APPLICATION NUMBER: US 09/268,163
;  PRIOR FILING DATE: 1999-03-12
;  PRIOR APPLICATION NUMBER: US 60/077,901
;  PRIOR FILING DATE: 1998-03-13
;  NUMBER OF SEQ ID NOS: 28
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 2
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-033-026-2

  Query Match             64.0%;  Score 16;  DB 13;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+06;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FVG 3
              |||
Db          2 FVG 4


Search completed: March 23, 2005, 15:07:06
Job time : 93 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 23, 2005, 14:37:21 ; Search time 30 Seconds
(without alignments)
12.442 Million cell updates/sec

Title: SEQ2
Perfect score: 25
Sequence: 1 fvglm 5

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 27945

Minimum DB seq length: 0
Maximum DB seq length: 5

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	20	80.0	5	1	US-07-753-909B-3	Sequence 3, Appli
2	20	80.0	5	1	US-07-934-553-2	Sequence 2, Appli
3	20	80.0	5	1	US-08-269-288-1	Sequence 1, Appli
4	20	80.0	5	1	US-08-225-474-2	Sequence 2, Appli
5	20	80.0	5	1	US-08-391-910-1	Sequence 1, Appli
6	20	80.0	5	1	US-08-418-994-1	Sequence 1, Appli
7	20	80.0	5	1	US-08-391-814-1	Sequence 1, Appli
8	20	80.0	5	1	US-08-441-591-61	Sequence 61, Appl
9	20	80.0	5	1	US-08-303-362A-61	Sequence 61, Appl
10	20	80.0	5	1	US-08-462-415-1	Sequence 1, Appli
11	20	80.0	5	1	US-08-463-874-1	Sequence 1, Appli
12	20	80.0	5	1	US-08-444-135-1	Sequence 1, Appli
13	20	80.0	5	1	US-08-318-391-1	Sequence 1, Appli
14	20	80.0	5	2	US-07-737-371E-6	Sequence 6, Appli
15	20	80.0	5	3	US-08-257-966-1	Sequence 1, Appli
16	20	80.0	5	3	US-09-265-690C-1	Sequence 1, Appli
17	20	80.0	5	3	US-09-265-690C-4	Sequence 4, Appli
18	20	80.0	5	4	US-08-153-847-1	Sequence 1, Appli
19	20	80.0	5	4	US-09-635-266-4	Sequence 4, Appli
20	20	80.0	5	4	US-10-230-133-4	Sequence 4, Appli
21	20	80.0	5	5	PCT-US95-05600-78	Sequence 78, Appl
22	19	76.0	5	1	US-07-690-284A-6	Sequence 6, Appli
23	17	68.0	5	2	US-07-737-371E-48	Sequence 48, Appl
24	16	64.0	4	1	US-08-127-904-2	Sequence 2, Appli
25	16	64.0	4	1	US-08-127-904-12	Sequence 12, Appl
26	16	64.0	4	3	US-08-638-407-24	Sequence 24, Appl
27	16	64.0	4	3	US-09-264-709A-11	Sequence 11, Appl
28	16	64.0	4	3	US-09-264-709A-33	Sequence 33, Appl
29	16	64.0	4	3	US-09-264-709A-35	Sequence 35, Appl
30	16	64.0	4	3	US-09-268-163-2	Sequence 2, Appli
31	16	64.0	4	5	PCT-US94-10475-2	Sequence 2, Appli
32	16	64.0	4	5	PCT-US94-10475-12	Sequence 12, Appl
33	16	64.0	5	1	US-07-690-284A-2	Sequence 2, Appli
34	16	64.0	5	1	US-08-127-904-1	Sequence 1, Appli
35	16	64.0	5	3	US-09-264-709A-27	Sequence 27, Appl
36	16	64.0	5	4	US-09-608-892-16	Sequence 16, Appl
37	16	64.0	5	5	PCT-US94-10475-1	Sequence 1, Appli
38	15	60.0	3	4	US-09-635-266-2	Sequence 2, Appli
39	15	60.0	3	4	US-10-230-133-2	Sequence 2, Appli
40	15	60.0	4	1	US-08-127-904-8	Sequence 8, Appli
41	15	60.0	4	1	US-08-441-591-63	Sequence 63, Appl
42	15	60.0	4	1	US-08-303-362A-63	Sequence 63, Appl
43	15	60.0	4	2	US-08-070-301-8	Sequence 8, Appli
44	15	60.0	4	3	US-09-265-690C-2	Sequence 2, Appli
45	15	60.0	4	4	US-09-635-266-3	Sequence 3, Appli

ALIGNMENTS

```
RESULT 1
US-07-753-909B-3
; Sequence 3, Application US/07753909B
; Patent No. 5304632
;  GENERAL INFORMATION:
;    APPLICANT:  Vaudry, Hubert
;    APPLICANT:  Conlon, Michael J.
;    TITLE OF INVENTION:  Neuropeptides of the Tachykinin Family
;    NUMBER OF SEQUENCES:  3
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Zarley, McKee, Thomte, Voorhees, and Sease
;      STREET:  801 Grand, Suite 3200
;      CITY:  Des Moines
;      STATE:  Iowa
;      COUNTRY:  United States
;      ZIP:  50309
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/753,909B
;      FILING DATE:  19910903
;      CLASSIFICATION:  530
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  FR 9106759
;      FILING DATE:  04-JUN-1991
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Sease, Edmund J.
;      REGISTRATION NUMBER:  24,741
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (515)-288-3667
;      TELEFAX:  (515)-288-1338
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5 amino acids
;      TYPE:  AMINO ACID
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FRAGMENT TYPE:  C-terminal
;    ORIGINAL SOURCE:
;      ORGANISM:  Rana ridibunda
;      DEVELOPMENTAL STAGE:  adult
;      TISSUE TYPE:  brain
US-07-753-909B-3

  Query Match            80.0%;  Score 20;  DB 1;  Length 5;
  Best Local Similarity  80.0%;  Pred. No. 4.1e+05;
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  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 2
US-07-934-553-2
; Sequence 2, Application US/07934553
; Patent No. 5314690
;  GENERAL INFORMATION:
;    APPLICANT:  PATTERSON, ROY
;    APPLICANT:  HARRIS, KATHLEEN E
;    TITLE OF INVENTION:  METHOD AND COMPOSITION FOR REDUCING IgE
;    TITLE OF INVENTION:  ANTIBODIES TO SPECIFIC ALLERGENS
;    NUMBER OF SEQUENCES:  5
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  TILTON, FALLON, LUNGMUS & CHESTNUT
;      STREET:  100 SOUTH WACKER DRIVE
;      CITY:  CHICAGO
;      STATE:  ILLINOIS
;      COUNTRY:  USA
;      ZIP:  60606-4002
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/934,553
;      FILING DATE:  19920821
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/705,071
;      FILING DATE:  24-MAY-1991
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  FENTRESS, SUSAN B
;      REGISTRATION NUMBER:  31,327
;      REFERENCE/DOCKET NUMBER:  NU-9033CIP
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  312/456-8000
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5 amino acids
;      TYPE:  AMINO ACID
;      STRANDEDNESS:  unknown
;      TOPOLOGY:  unknown
;    MOLECULE TYPE:  peptide
US-07-934-553-2

  Query Match             80.0%;  Score 20;  DB 1;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 3
US-08-269-288-1
; Sequence 1, Application US/08269288
; Patent No. 5491140
;  GENERAL INFORMATION:
;    APPLICANT:  Bruns, Robert F.
;    APPLICANT:  Gehlert, Donald R.
;    APPLICANT:  Howbert, James J.
;    APPLICANT:  Lunn, William H.W.
;    TITLE OF INVENTION:  NAPHTHYL TACHYKININ RECEPTOR ANTAGONISTS
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Eli Lilly and Company
;      STREET:  Lilly Corporate Center/1104
;      CITY:  Indianapolis
;      STATE:  Indiana
;      COUNTRY:  United States of America
;      ZIP:  46285
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/269,288
;      FILING DATE:
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Gaylo, Paul J.
;      REGISTRATION NUMBER:  36,808
;      REFERENCE/DOCKET NUMBER:  X-9715
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (317) 276-0756
;      TELEFAX:  (317) 276-3861
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-269-288-1

  Query Match             80.0%;  Score 20;  DB 1;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 4
US-08-225-474-2
; Sequence 2, Application US/08225474
; Patent No. 5560915
;  GENERAL INFORMATION:
;    APPLICANT:  Patterson, Roy
;    APPLICANT:  Harris, Kathleen E.
;    TITLE OF INVENTION:  Method and Composition for Treating
;    TITLE OF INVENTION:  IgE Mediated Allergies
;    NUMBER OF SEQUENCES:  5
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Tilton, Fallon, Lungmus & Chestnut
;      STREET:  100 S. Wacker Drive, Suite 960
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60606-4002
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/225,474
;      FILING DATE:
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/934,553
;      FILING DATE:  21-AUG-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/705,071
;      FILING DATE:  24-MAY-1991
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Tilton, Timothy L.
```

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;       REGISTRATION NUMBER:  16,926
;       REFERENCE/DOCKET NUMBER:  NU 9033-CIP2
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (312)-456-8000
;       TELEFAX:  (312)-456-7776
;   INFORMATION FOR SEQ ID NO:  2:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  5 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  unknown
;       TOPOLOGY:  unknown
;     MOLECULE TYPE:  peptide
US-08-225-474-2

  Query Match             80.0%;  Score 20;  DB 1;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 5
US-08-391-910-1
; Sequence 1, Application US/08391910
; Patent No. 5563133
;  GENERAL INFORMATION:
;     APPLICANT:  Hipskind, Philip A.
;     TITLE OF INVENTION:  HEXAMETHYLENEIMINYL TACHYKININ RECEPTOR
;     TITLE OF INVENTION:  ANTAGONISTS
;     NUMBER OF SEQUENCES:  4
;     CORRESPONDENCE ADDRESS:
;       ADDRESSEE:  Eli Lilly and Company
;       STREET:  Lilly Corporate Center
;       CITY:  Indianapolis
;       STATE:  Indiana
;       COUNTRY:  United States of America
;       ZIP:  46285
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.30
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/391,910
;       FILING DATE:
;       CLASSIFICATION:  514
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Gaylo, Paul J.
;       REGISTRATION NUMBER:  36,808
;       REFERENCE/DOCKET NUMBER:  X-9979
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (317) 276-0756
;       TELEFAX:  (317) 276-3861
;   INFORMATION FOR SEQ ID NO:  1:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  5 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  peptide
US-08-391-910-1

  Query Match             80.0%;  Score 20;  DB 1;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 6
US-08-418-994-1
; Sequence 1, Application US/08418994
; Patent No. 5565568
;  GENERAL INFORMATION:
;     APPLICANT:  Cho, Sung-Yong S.
;     APPLICANT:  Hipskind, Philip A.
;     APPLICANT:  Howbert, J. J.
;     APPLICANT:  Muehl, Brian S.
;     APPLICANT:  Nixon, James A.
;     TITLE OF INVENTION:  2-ACYLAMINOPROPANAMIDES AS TACHYKININ
;     TITLE OF INVENTION:  RECEPTOR ANTAGONISTS
;     NUMBER OF SEQUENCES:  4
;     CORRESPONDENCE ADDRESS:
;       ADDRESSEE:  Eli Lilly and Company
;       STREET:  Lilly Corporate Center
;       CITY:  Indianapolis
;       STATE:  Indiana
;       COUNTRY:  United States of America
;       ZIP:  46285
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.30
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/418,994
;       FILING DATE:
;       CLASSIFICATION:  530
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Gaylo, Paul J.
;       REGISTRATION NUMBER:  36,808
;       REFERENCE/DOCKET NUMBER:  X-8252
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (317) 276-0756
;       TELEFAX:  (317) 276-3861
;   INFORMATION FOR SEQ ID NO:  1:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  5 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  peptide
US-08-418-994-1

  Query Match             80.0%;  Score 20;  DB 1;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 7
US-08-391-814-1
; Sequence 1, Application US/08391814
; Patent No. 5607947
;  GENERAL INFORMATION:
;     APPLICANT:  Hipskind, Philip A.
;     TITLE OF INVENTION:  PYRROLIDINYL TACHYKININ RECEPTOR
;     TITLE OF INVENTION:  ANTAGONISTS
;     NUMBER OF SEQUENCES:  4
;     CORRESPONDENCE ADDRESS:
;       ADDRESSEE:  Eli Lilly and Company
;       STREET:  Lilly Corporate Center
;       CITY:  Indianapolis
;       STATE:  Indiana
;       COUNTRY:  United States of America
;       ZIP:  46285
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
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;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/391,814
;      FILING DATE:
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Gaylo, Paul J.
;      REGISTRATION NUMBER:  36,808
;      REFERENCE/DOCKET NUMBER:  X-9965
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (317) 276-0756
;      TELEFAX:  (317) 276-3861
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-391-814-1

  Query Match             80.0%;  Score 20;  DB 1;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 8
US-08-441-591-61
; Sequence 61, Application US/08441591
; Patent No. 5637682
;  GENERAL INFORMATION:
;    APPLICANT:  NIEUWLANDT, D., GOLD, L.  AND WECKER, M.
;    TITLE OF INVENTION:  HIGH-AFFINITY
;    TITLE OF INVENTION:  OLIGONUCLEOTIDE LIGANDS
;    TITLE OF INVENTION:  TO THE TACHYKININ
;    TITLE OF INVENTION:  SUBSTANCE P
;    NUMBER OF SEQUENCES:  66
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Swanson & Bratschun, L.L.C.
;      STREET:  8400 E. Prentice Avenue, Suite 200
;      CITY:  Englewood
;      STATE:  Colorado
;      COUNTRY:  USA
;      ZIP:  80111
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette, 3.50 inch, 1.44 MG storage
;      COMPUTER:  IBM compatible
;      OPERATING SYSTEM:  MS-DOS
;      SOFTWARE:  WordPerfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/441,591
;      FILING DATE:
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/303,362
;      FILING DATE:  9-SEPTEMBER-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/714,131
;      FILING DATE:  10-JUNE-1991
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/931,473
;      FILING DATE:  17-AUGUST-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/117,991
;      FILING DATE:  8-SEPTEMBER 1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/536,428
;      FILING DATE:  11-JUNE-1990
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/964,624
;      FILING DATE:  21-OCTOBER-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Barry J. Swanson
;      REGISTRATION NUMBER:  33,215
;      REFERENCE/DOCKET NUMBER:  NEX21/C
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (303) 793-3333
;      TELEFAX:  (303) 793-3433
;  INFORMATION FOR SEQ ID NO:  61:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    FEATURE:
;      NAME/KEY:  Xaa
;      LOCATION:  2
;      OTHER INFORMATION:  AROMATIC OR ALIPHATIC
;      OTHER INFORMATION:  AMINO ACID
US-08-441-591-61

  Query Match             80.0%;  Score 20;  DB 1;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 9
US-08-303-362A-61
; Sequence 61, Application US/08303362A
; Patent No. 5648214
;  GENERAL INFORMATION:
;    APPLICANT:  NIEUWLANDT, D., GOLD, L.  AND WECKER, M.
;    TITLE OF INVENTION:  HIGH-AFFINITY
;    TITLE OF INVENTION:  OLIGONUCLEOTIDE LIGANDS
;    TITLE OF INVENTION:  TO THE TACHYKININ
;    TITLE OF INVENTION:  SUBSTANCE P
;    NUMBER OF SEQUENCES:  66
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Swanson & Bratschun, L.L.C.
;      STREET:  8400 E. Prentice Avenue, Suite 200
;      CITY:  Englewood
;      STATE:  Colorado
;      COUNTRY:  USA
;      ZIP:  80111
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette, 3.50 inch, 1.44 MG storage
;      COMPUTER:  IBM compatible
;      OPERATING SYSTEM:  MS-DOS
;      SOFTWARE:  WordPerfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/303,362A
;      FILING DATE:  9-SEPTEMBER-1994
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/714,131
;      FILING DATE:  10-JUNE-1991
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/931,473
;      FILING DATE:  17-AUGUST-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/117,991
;      FILING DATE:  8-SEPTEMBER 1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/536,428
;      FILING DATE:  11-JUNE-1990
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/964,624
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;      FILING DATE:  21-OCTOBER-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Barry J. Swanson
;      REGISTRATION NUMBER:  33,215
;      REFERENCE/DOCKET NUMBER:  NEX21
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (303) 793-3333
;      TELEFAX:  (303) 793-3433
;  INFORMATION FOR SEQ ID NO:  61:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    FEATURE:
;      NAME/KEY:  Xaa
;      LOCATION:  2
;      OTHER INFORMATION:  AROMATIC OR ALIPHATIC
;      OTHER INFORMATION:  AMINO ACID
US-08-303-362A-61

  Query Match             80.0%;  Score 20;  DB 1;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 10
US-08-462-415-1
; Sequence 1, Application US/08462415
; Patent No. 5670499
;  GENERAL INFORMATION:
;    APPLICANT:  Cho, Sung Y.
;    APPLICANT:  Crowell, Thomas A.
;    APPLICANT:  Gitter, Bruce D.
;    APPLICANT:  Hipskind, Philip A.
;    APPLICANT:  Howbert, Jeffry J.
;    APPLICANT:  Krushinski, Joseph H.
;    APPLICANT:  Lobb, Karen L.
;    APPLICANT:  Muehl, Brian S.
;    APPLICANT:  Nixon, James A.
;    TITLE OF INVENTION:  HETEROCYCLIC TACHYKININ RECEPTOR
;    TITLE OF INVENTION:  ANTAGONISTS
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Eli Lilly and Company
;      STREET:  Lilly Corporate Center/Patent Division
;      CITY:  Indianapolis
;      STATE:  IN
;      COUNTRY:  US
;      ZIP:  46285
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/462,415
;      FILING DATE:  05-JUN-1995
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Gaylo, Paul J.
;      REGISTRATION NUMBER:  36,808
;      REFERENCE/DOCKET NUMBER:  X8849B
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  317-276-0756
;      TELEFAX:  317-276-3861
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-462-415-1

  Query Match             80.0%;  Score 20;  DB 1;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 11
US-08-463-874-1
; Sequence 1, Application US/08463874
; Patent No. 5684033
;  GENERAL INFORMATION:
;    APPLICANT:  Cho, Sung Y.
;    APPLICANT:  Crowell, Thomas A.
;    APPLICANT:  Gitter, Bruce D.
;    APPLICANT:  Hipskind, Philip A.
;    APPLICANT:  Howbert, Jeffry J.
;    APPLICANT:  Krushinski, Joseph H.
;    APPLICANT:  Lobb, Karen L.
;    APPLICANT:  Muehl, Brian S.
;    APPLICANT:  Nixon, James A.
;    TITLE OF INVENTION:  NON-PEPTIDE TACHYKININ RECEPTOR
;    TITLE OF INVENTION:  ANTAGONISTS
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Eli Lilly and Company
;      STREET:  Lilly Corporate Center/Patent Division
;      CITY:  Indianapolis
;      STATE:  IN
;      COUNTRY:  US
;      ZIP:  46285
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/463,874
;      FILING DATE:  05-JUN-1995
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Gaylo, Paul J.
;      REGISTRATION NUMBER:  36,808
;      REFERENCE/DOCKET NUMBER:  X8849C
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  317-276-0756
;      TELEFAX:  317-276-3861
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-463-874-1

  Query Match             80.0%;  Score 20;  DB 1;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5
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RESULT 12
US-08-444-135-1
; Sequence 1, Application US/08444135
; Patent No. 5723575
;  GENERAL INFORMATION:
;    APPLICANT:  Gilon, Chaim
;    APPLICANT:  Zelinger, Zvi
;    APPLICANT:  Byk, Gerardo
;    TITLE OF INVENTION:  Backbone Cyclic Peptides, Processes For
;    TITLE OF INVENTION:  Their Preparation and Pharmaceutical Compositions
;    TITLE OF INVENTION:  Containing Them
;    NUMBER OF SEQUENCES:  2
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Pennie & Edmonds
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  U.S.A.
;      ZIP:  10036-2711
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/444,135
;      FILING DATE:
;      CLASSIFICATION:  530
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/955,380
;      FILING DATE:  01-OCT-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Jarkovsky, Issac
;      REGISTRATION NUMBER:  22,713
;      REFERENCE/DOCKET NUMBER:  7754-003-999
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  212 790-9090
;      TELEFAX:  212 869-8864/9741
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FEATURE:
;      NAME/KEY:  Modified-site
;      LOCATION:  2
;      OTHER INFORMATION:  /label= Xaa
;      OTHER INFORMATION:  /note= "Xaa = Phe or Val"
US-08-444-135-1

  Query Match             80.0%;  Score 20;  DB 1;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 13
US-08-318-391-1
; Sequence 1, Application US/08318391
; Patent No. 5744482
;  GENERAL INFORMATION:
;    APPLICANT:  Cohen, Marlene L.
;    APPLICANT:  Johnson, Kirk W.
;    APPLICANT:  Phebus, Lee A.
;    TITLE OF INVENTION:  USE OF A SEROTONIN AGONIST IN
;    TITLE OF INVENTION:  COMBINATION WITH A TACHYKININ RECEPTOR ANTAGONIST IN THE
;    TITLE OF INVENTION:  TREATMENT OR PREVENTION OF MIGRAINE
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Eli Lilly and Company
;      STREET:  Lilly Corporate Center
;      CITY:  Indianapolis
;      STATE:  Indiana
;      COUNTRY:  United States of America
;      ZIP:  46285
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/318,391
;      FILING DATE:
;      CLASSIFICATION:  424
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Gaylo, Paul J.
;      REGISTRATION NUMBER:  36,808
;      REFERENCE/DOCKET NUMBER:  X-9664
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (317) 276-0756
;      TELEFAX:  (317) 276-3861
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-318-391-1

  Query Match             80.0%;  Score 20;  DB 1;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5


RESULT 14
US-07-737-371E-6
; Sequence 6, Application US/07737371E
; Patent No. 5876948
;  GENERAL INFORMATION:
;    APPLICANT:  Yankner, Bruce A.
;    TITLE OF INVENTION:  SCREENING METHODS TO IDENTIFY
;    TITLE OF INVENTION:  NEUROTOXIN INHIBITORS (AS AMENDED)
;    NUMBER OF SEQUENCES:  77
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson, P.C.
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  US
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  Windows95
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/737,371E
;      FILING DATE:  29-JUL-1991
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/559,172
;      FILING DATE:  27-JUL-1990
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Freeman, John W.
;      REGISTRATION NUMBER:  29,066
```

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;      REFERENCE/DOCKET NUMBER:  00108/028002
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  617-542-5070
;      TELEFAX:  617-542-8906
;      TELEX:  200154
;  INFORMATION FOR SEQ ID NO:  6:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-07-737-371E-6

  Query Match             80.0%;  Score 20;  DB 2;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FFGLM 5


RESULT 15
US-08-257-966-1
; Sequence 1, Application US/08257966
; Patent No. 6175013
;  GENERAL INFORMATION:
;    APPLICANT:  Hipskind, Philip A.
;    APPLICANT:  Howbert, James J.
;    APPLICANT:  Muehl, Brian S.
;    TITLE OF INVENTION:  IMIDAZOLINYL TACHYKININ RECEPTOR
;    TITLE OF INVENTION:  ANTAGONISTS
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Eli Lilly and Company
;      STREET:  Lilly Corporate Center/1104
;      CITY:  Indianapolis
;      STATE:  Indiana
;      COUNTRY:  United States of America
;      ZIP:  46285
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/257,966
;      FILING DATE:
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Gaylo, Paul J.
;      REGISTRATION NUMBER:  36,808
;      REFERENCE/DOCKET NUMBER:  X-9197
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (317) 276-0756
;      TELEFAX:  (317) 276-3861
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  5 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-257-966-1

  Query Match             80.0%;  Score 20;  DB 3;  Length 5;
  Best Local Similarity   80.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 FVGLM 5
              | |||
Db          1 FXGLM 5
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Search completed: March 23, 2005, 14:50:59
Job time : 31 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 23, 2005, 15:03:13 ; Search time 38 Seconds
(without alignments)
10.128 Million cell updates/sec

Title: SEQ3
Perfect score: 21
Sequence: 1 fglm 4

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 86

Minimum DB seq length: 0
Maximum DB seq length: 4

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	10	47.6	4	2	PT0240	Ig heavy chain CRD
2	10	47.6	4	2	A53284	T-cell receptor be
3	8	38.1	4	2	PT0633	T-cell receptor be
4	7	33.3	3	3	B23751	spinal cord peptid
5	7	33.3	4	2	B44823	synaptosomal-assoc
6	7	33.3	4	2	B53284	T-cell receptor be
7	6	28.6	3	3	PT0636	T-cell receptor be
8	6	28.6	3	3	PT0571	T-cell receptor be
9	6	28.6	3	3	S68328	blood cell protein
10	6	28.6	3	3	GKHU	growth-modulating
11	6	28.6	3	3	A60898	bursin - chicken
12	6	28.6	3	3	A23751	spinal cord peptid
13	6	28.6	4	1	ECXAA	antho-RFamide neur
14	6	28.6	4	2	D41654	hypothetical prote
15	6	28.6	4	2	S53508	starvation-induced
16	6	28.6	4	2	T30569	hypothetical prote
17	6	28.6	4	2	I38888	COI intron 16 prot
18	6	28.6	4	2	A25844	autho-RF amide neu
19	6	28.6	4	2	A34626	RPCH-related neuro
20	6	28.6	4	2	S39390	myosin-light-chain
21	6	28.6	4	2	S43959	Ig mu chain V regi
22	6	28.6	4	2	S47552	ubiquitin - rat
23	6	28.6	4	2	S09478	globulin IV alpha
24	6	28.6	4	2	PL0140	carbon-monoxide de
25	6	28.6	4	2	JQ1273	neuropeptide Antho
26	6	28.6	4	2	A35779	neuropeptide Antho
27	6	28.6	4	2	A60418	FMRFamide - polych
28	6	28.6	4	2	A32480	achatin-I - giant
29	6	28.6	4	2	PT0271	Ig heavy chain CRD
30	6	28.6	4	2	PT0711	T-cell receptor be
31	6	28.6	4	2	PT0698	T-cell receptor be
32	6	28.6	4	2	PT0677	T-cell receptor be
33	6	28.6	4	2	PT0706	T-cell receptor be
34	6	28.6	4	2	PT0675	T-cell receptor be
35	6	28.6	4	2	PT0721	T-cell receptor be
36	6	28.6	4	2	PT0566	T-cell receptor be
37	6	28.6	4	2	A32039	tyrosine-melanocyt
38	6	28.6	4	2	ECNK	cardioexcitatory n
39	5	23.8	3	3	PQ0010	angiotensin-conver
40	5	23.8	3	3	S13894	histidinol dehydro
41	5	23.8	3	3	I50412	gene p20K protein
42	5	23.8	3	3	PT0578	T-cell receptor be
43	5	23.8	3	3	I78890	tyrosine protein k
44	5	23.8	3	3	T13892	cytochrome-c oxida
45	5	23.8	4	2	S18401	thyroglobulin - do

ALIGNMENTS

RESULT 1
PT0240
Ig heavy chain CRD3 region (clone 2-100B) - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996
C;Accession: PT0240
R;Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A;Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j
A;Reference number: PT0222; MUID:91108337; PMID:1899102
A;Accession: PT0240
A;Molecule type: DNA
A;Residues: 1-4 <YAM>
A;Experimental source: B lymphocyte
C;Keywords: heterotetramer; immunoglobulin

Query Match 47.6%; Score 10; DB 2; Length 4;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 GL 3
||
Db 3 GL 4

RESULT 2
A53284
T-cell receptor beta 2 chain D region, Dbeta2 - rabbit
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 02-May-1994 #sequence_revision 18-Nov-1994 #text_change 05-Nov-1999
C;Accession: A53284
R;Harindranath, N.; Alexander, C.B.; Mage, R.G.
Mol. Immunol. 28, 881-888, 1991
A;Title: Evolutionarily conserved organization and sequences of germline diversity and j
A;Reference number: A53284; MUID:91342695; PMID:1678859
A;Accession: A53284
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-4 <HAR>
A;Cross-references: GB:S60737; NID:g233916; PIDN:AAB19517.1; PID:g233917
A;Note: sequence extracted from NCBI backbone (NCBIN:60737, NCBIP:60739)
C;Keywords: T-cell receptor

Query Match 47.6%; Score 10; DB 2; Length 4;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 GL 3
||
Db 1 GL 2

```
RESULT 3
PT0633
T-cell receptor beta chain V-D-J region (120-2C) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 09-Jul-2004
C;Accession: PT0633
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0633
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-4 <FEE>
A;Cross-references: UNIPROT:Q8BIV7
A;Experimental source: newborn thymus, strain BALB/c
C;Keywords: T-cell receptor

  Query Match             38.1%;  Score 8;  DB 2;  Length 4;
  Best Local Similarity   50.0%;  Pred. No. 2.8e+05;
  Matches    1;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 GL 3
              |:
Db          3 GI 4


RESULT 4
B23751
spinal cord peptide SCP-5 - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 15-Jun-2001 #sequence_revision 15-Jun-2001 #text_change 15-Mar-2004
C;Accession: B23751
R;Hsi, K.L.; Chen, R.L.; Chen, Z.G.; Zhang, H.L.; Lu, Y.A.; Guo, S.Y.; Wu, S.X.; Tsou, K
Arch. Biochem. Biophys. 240, 178-183, 1985
A;Reference number: A23751; MUID:85250425; PMID:4015098
A;Accession: B23751
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-3 <HSI>

  Query Match             33.3%;  Score 7;  DB 3;  Length 3;
  Best Local Similarity   50.0%;  Pred. No. 2.8e+05;
  Matches    1;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 LM 4
              :|
Db          1 MM 2


RESULT 5
E44823
synaptosomal-associated protein SNAP-25 peptide 1 - rabbit (fragment)
N;Alternate names: superprotein peptide 1
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 31-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 15-Jun-1996
C;Accession: E44823
R;Loewy, A.; Liu, W.S.; Baitinger, C.; Willard, M.B.
J. Neurosci. 11, 3412-3421, 1991
A;Title: The major 35S-methionine-labeled rapidly transported protein (superprotein) is
A;Reference number: A44823; MUID:92044785; PMID:1941090
A;Accession: E44823
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-4 <LOE>
A;Experimental source: visual tissue
A;Note: sequence extracted from NCBI backbone (NCBIP:64247)
C;Keywords: membrane trafficking

  Query Match             33.3%;  Score 7;  DB 2;  Length 4;
  Best Local Similarity   50.0%;  Pred. No. 2.8e+05;
  Matches    1;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 LM 4
              :|
Db          1 IM 2


RESULT 6
B53284
T-cell receptor beta 2 chain D region, Dbeta2 - rabbit
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 02-May-1994 #sequence_revision 18-Nov-1994 #text_change 05-Nov-1999
C;Accession: B53284
R;Harindranath, N.; Alexander, C.B.; Mage, R.G.
Mol. Immunol. 28, 881-888, 1991
A;Title: Evolutionarily conserved organization and sequences of germline diversity and j
A;Reference number: A53284; MUID:91342695; PMID:1678859
A;Accession: B53284
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-4 <HAR>
A;Cross-references: GB:S60737; NID:g233916; PIDN:AAB19518.1; PID:g233918
A;Note: sequence extracted from NCBI backbone (NCBIN:60737, NCBIP:60738)
C;Keywords: T-cell receptor

  Query Match             33.3%;  Score 7;  DB 2;  Length 4;
  Best Local Similarity   50.0%;  Pred. No. 2.8e+05;
  Matches    1;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FG 2
              :|
Db          2 WG 3


RESULT 7
PT0636
T-cell receptor beta chain V-D-J region (100-2AT) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 15-Jun-2001 #sequence_revision 15-Jun-2001 #text_change 15-Jun-2001
C;Accession: PT0636
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0636
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-3 <FEE>
A;Experimental source: newborn thymus, strain BALB/c
C;Keywords: T-cell receptor

  Query Match             28.6%;  Score 6;  DB 3;  Length 3;
  Best Local Similarity   100.0%;  Pred. No. 2.8e+05;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 G 2
              |
Db          3 G 3


RESULT 8
PT0571
T-cell receptor beta chain V-D-J region (141-1CM) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 15-Jun-2001 #sequence_revision 15-Jun-2001 #text_change 15-Jun-2001
C;Accession: PT0571
R;Feeney, A.J.
J. Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUID:91277601; PMID:1711558
A;Accession: PT0571
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-3 <FEE>
A;Experimental source: day 19 fetal thymus, strain BALB/c
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C;Keywords: T-cell receptor

Query Match 28.6%; Score 6; DB 3; Length 3;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 G 2
|
Db 3 G 3

RESULT 9
S68328
blood cell protein A - Molgula manhattensis (fragment)
C;Species: Molgula manhattensis
C;Date: 15-Jun-2001 #sequence_revision 15-Jun-2001 #text_change 15-Jun-2001
C;Accession: S68328
R;Taylor, S.W.; Ross, M.M.; Waite, J.H.
Arch. Biochem. Biophys. 324, 228-240, 1995
A;Title: Novel 3,4-di- and 3,4,5-trihydroxyphenylalanine-containing polypeptides from th
A;Reference number: S68325; MUID:96132650; PMID:8554314
A;Accession: S68328
A;Molecule type: protein
A;Residues: 1-3 <TAY>

Query Match 28.6%; Score 6; DB 3; Length 3;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 F 1
|
Db 2 F 2

RESULT 10
GKHU
growth-modulating peptide - human
C;Species: Homo sapiens (man)
C;Date: 15-Jun-2001 #sequence_revision 15-Jun-2001 #text_change 15-Mar-2004
C;Accession: A01421
R;Schlesinger, D.H.; Pickart, L.; Thaler, M.M.
Experientia 33, 324-325, 1977
A;Title: Growth-modulating serum tripeptide is glycyl-histidyl-lysine.
A;Reference number: A01421; MUID:77162369; PMID:858356
A;Accession: A01421
A;Molecule type: protein
A;Residues: 1-3 <SCH>
A;Note: this serum tripeptide is found to stimulate growth of some cell types and to inh

Query Match 28.6%; Score 6; DB 3; Length 3;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 G 2
|
Db 1 G 1

RESULT 11
A60898
bursin - chicken
C;Species: Gallus gallus (chicken)
C;Date: 15-Jun-2001 #sequence_revision 15-Jun-2001 #text_change 15-Mar-2004
C;Accession: A60898
R;Audhya, T.; Kroon, D.; Heavner, G.; Viamontes, G.; Goldstein, G.
Science 231, 997-999, 1986
A;Title: Tripeptide structure of bursin, a selective B-cell-differentiating hormone of t
A;Reference number: A60898; MUID:86122916; PMID:3484838
A;Accession: A60898
A;Molecule type: protein
A;Residues: 1-3 <AUD>
C;Keywords: amidated carboxyl end; hormone
F;3/Modified site: amidated carboxyl end (Gly) #status experimental

Query Match 28.6%; Score 6; DB 3; Length 3;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 G 2
|
Db 3 G 3

RESULT 12
A23751
spinal cord peptide SCP-4 - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 15-Jun-2001 #sequence_revision 15-Jun-2001 #text_change 15-Mar-2004
C;Accession: A23751
R;Hsi, K.L.; Chen, R.L.; Chen, Z.G.; Zhang, H.L.; Lu, Y.A.; Guo, S.Y.; Wu, S.X.; Tsou, K
Arch. Biochem. Biophys. 240, 178-183, 1985
A;Reference number: A23751; MUID:85250425; PMID:4015098
A;Accession: A23751
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-3 <HSI>

Query Match 28.6%; Score 6; DB 3; Length 3;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 G 2
|
Db 2 G 2

RESULT 13
ECXAA
antho-RFamide neuropeptide - sea anemone (Anthopleura elegantissima)
C;Species: Anthopleura elegantissima
C;Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 09-Jul-2004
C;Accession: A26666
R;Grimmelikhuijzen, C.J.P.; Graff, D.
Proc. Natl. Acad. Sci. U.S.A. 83, 9817-9821, 1986
A;Title: Isolation of <Glu-Gly-Arg-Phe-NH2 (Antho-RFamide), a neuropeptide from sea anem
A;Reference number: A26666; MUID:87092339; PMID:2879288
A;Accession: A26666
A;Molecule type: protein
A;Residues: 1-4 <GRI>
A;Cross-references: UNIPROT:P10419
C;Comment: The function of this peptide is not known but it could act as a transmitter a
C;Comment: Synthetic and natural peptides had identical properties.
C;Superfamily: RFamide neuropeptide
C;Keywords: amidated carboxyl end; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;4/Modified site: amidated carboxyl end (Phe) #status experimental

Query Match 28.6%; Score 6; DB 1; Length 4;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 G 2
|
Db 2 G 2

RESULT 14
D41654
hypothetical protein (sodC 5' region) - Haemophilus parainfluenzae (fragment)
C;Species: Haemophilus parainfluenzae
C;Date: 12-Jun-1992 #sequence_revision 12-Jun-1992 #text_change 24-Feb-1995
C;Accession: D41654
R;Kroll, J.S.; Langford, P.R.; Loynds, B.M.
J. Bacteriol. 173, 7449-7457, 1991
A;Title: Copper-zinc superoxide dismutase of Haemophilus influenzae and Haemophilus para
A;Reference number: A41654; MUID:92041655; PMID:1938942

A;Accession: D41654
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-4 <KRO>

Query Match 28.6%; Score 6; DB 2; Length 4;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 F 1
|
Db 3 F 3

RESULT 15
S53508
starvation-induced ribonuclease - tomato
C;Species: Lycopersicon esculentum (tomato)
C;Date: 01-Aug-1995 #sequence_revision 01-Sep-1995 #text_change 07-May-1999
C;Accession: S53508
R;Koeck, M.; Loeffler, A.; Abel, S.; Glund, K.
Plant Mol. Biol. 27, 477-485, 1995
A;Title: cDNA structure and regulatory properties of a family of starvation-induced ribo
A;Reference number: S53506; MUID:95201242; PMID:7894013
A;Accession: S53508
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-4 <KOE>

Query Match 28.6%; Score 6; DB 2; Length 4;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 1; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 F 1
|
Db 1 F 1

Search completed: March 23, 2005, 15:13:39
Job time : 38 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 23, 2005, 14:51:07 ; Search time 171 Seconds
(without alignments)
11.978 Million cell updates/sec

Title: SEQ3
Perfect score: 21
Sequence: 1 fglm 4

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 26

Minimum DB seq length: 0
Maximum DB seq length: 4

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	12	57.1	4	1	OCP1_OCTMI	P58648 octopus min
2	9	42.9	4	1	ILME_SEPOF	P83568 sepia offic
3	6	28.6	2	1	GWA_SEPOF	P83570 sepia offic
4	6	28.6	3	1	GRWM_HUMAN	P01157 homo sapien
5	6	28.6	4	1	ACH1_ACHFU	P35904 achatina fu
6	6	28.6	4	1	DCML_PSECH	P19916 pseudomonas
7	6	28.6	4	1	EOSI_HUMAN	P02731 homo sapien
8	6	28.6	4	1	FAR3_HIRME	P42562 hirudo medi
9	6	28.6	4	1	FAR4_HIRME	P42563 hirudo medi
10	6	28.6	4	1	FFKA_ANTEL	P58705 anthopleura
11	6	28.6	4	1	FLRF_HIRME	P42561 hirudo medi
12	6	28.6	4	1	FLRN_ANTEL	P58707 anthopleura
13	6	28.6	4	1	FMRF_MACNI	P01162 macrocallis
14	6	28.6	4	1	FYRI_ANTEL	P58706 anthopleura
15	6	28.6	4	1	OCP3_OCTMI	P58649 octopus min
16	6	28.6	4	2	Q16047	Q16047 homo sapien
17	5	23.8	4	1	DCMS_PSECH	P19918 pseudomonas
18	5	23.8	4	2	Q96AT0	Q96at0 homo sapien
19	4	19.0	4	2	Q08433	Q08433 rattus sp.
20	2	9.5	3	1	LUXE_VIBFI	P24272 vibrio fisc
21	1	4.8	4	1	YLM1_YEAST	P36515 saccharomyc
22	0	0.0	3	1	THYL_BOMOR	P62970 bombina ori
23	0	0.0	3	1	THYL_NOTVI	P62971 notophthalm
24	0	0.0	3	1	THYL_PIG	P62968 sus scrofa
25	0	0.0	3	1	THYL_SHEEP	P62969 ovis aries
26	0	0.0	4	1	TUFT_HUMAN	P01858 homo sapien

ALIGNMENTS

RESULT 1
OCP1_OCTMI
ID OCP1_OCTMI STANDARD; PRT; 4 AA.
AC P58648;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Cardioactive peptides Ocp-1/Ocp-2.
OS Octopus minor (Octopus).
OC Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC Octopodiformes; Octopoda; Incirrata; Octopodidae; Octopus.
OX NCBI_TaxID=89766;
RN [1]
RP SEQUENCE, SYNTHESIS, MASS SPECTROMETRY, AND CHARACTERIZATION.
RC TISSUE=Brain;
RX MEDLINE=20336815; PubMed=10876044; DOI=10.1016/S0196-9781(00)00201-1;
RA Iwakoshi E., Hisada M., Minakata H.;
RT "Cardioactive peptides isolated from the brain of a Japanese octopus,
RT Octopus minor.";
RL Peptides 21:623-630(2000).
CC -!- FUNCTION: Cardioactive; has both positive chronotropic and
CC inotropic effects on the heart. Ocp-2 is a 1000 time less active
CC than Ocp-1.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- PTM: Ocp-2 has L-Phe instead of D-Phe.
CC -!- MASS SPECTROMETRY: MW=395.2; METHOD=MALDI; RANGE=1-4; NOTE=Ref.1.
KW D-amino acid; Direct protein sequencing; Hormone.
FT MOD_RES 2 2 D-phenylalanine (in form Ocp-1).
SQ SEQUENCE 4 AA; 394 MW; 6AA879C810000000 CRC64;

Query Match 57.1%; Score 12; DB 1; Length 4;
Best Local Similarity 100.0%; Pred. No. 1.6e+06;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FG 2
||
Db 2 FG 3

RESULT 2
ILME_SEPOF
ID ILME_SEPOF STANDARD; PRT; 4 AA.
AC P83568;
DT 29-MAR-2004 (Rel. 43, Created)
DT 29-MAR-2004 (Rel. 43, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Pheromone peptide ILME.
OS Sepia officinalis (Common cuttlefish).
OC Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC Decapodiformes; Sepioidea; Sepiidae; Sepia.
OX NCBI_TaxID=6610;
RN [1]
RP SEQUENCE, SUBCELLULAR LOCATION, TISSUE SPECIFICITY, AND MASS
RP SPECTROMETRY.
RC TISSUE=Egg;
RX MEDLINE=20403899; PubMed=10944467; DOI=10.1006/bbrc.2000.3286;
RA Zatylny C., Gagnon J., Boucaud-Camou E., Henry J.;
RT "ILME: a waterborne pheromonal peptide released by the eggs of Sepia
RT officinalis.";
RL Biochem. Biophys. Res. Commun. 275:217-222(2000).
RN [2]
RP SEQUENCE.
RC TISSUE=Egg;
RX MEDLINE=22197108; PubMed=12207899; DOI=10.1016/S0006-291X(02)02036-3;
RA Zatylny C., Marvin L., Gagnon J., Henry J.;
RT "Fertilization in Sepia officinalis: the first mollusk sperm-
RT attracting peptide.";
RL Biochem. Biophys. Res. Commun. 296:1186-1193(2002).
CC -!- FUNCTION: Has myotropic activity targeting the genital tract.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Follicle, fully grown oocyte and egg(EC2).
CC -!- MASS SPECTROMETRY: MW=505.4; METHOD=MALDI; RANGE=1-4; NOTE=Ref.1.
KW Direct protein sequencing; Pheromone.

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SQ   SEQUENCE   4 AA;  505 MW;  6B16972030000000 CRC64;

  Query Match             42.9%;  Score 9;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    2;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 LM 4
              ||
Db          2 LM 3


RESULT 3
GWA_SEPOF
ID   GWA_SEPOF      STANDARD;      PRT;     2 AA.
AC   P83570;
DT   29-MAR-2004 (Rel. 43, Created)
DT   29-MAR-2004 (Rel. 43, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Neuropeptide GWa.
OS   Sepia officinalis (Common cuttlefish).
OC   Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC   Decapodiformes; Sepioidea; Sepiidae; Sepia.
OX   NCBI_TaxID=6610;
RN   [1]
RP   SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND AMIDATION.
RC   TISSUE=Optic lobe;
RX   MEDLINE=98100358; PubMed=9437704; DOI=10.1016/S0196-9781(97)00241-6;
RA   Henry J., Favrel P., Boucaud-Camou E.;
RT   "Isolation and identification of a novel Ala-Pro-Gly-Trp-amide-related
RT   peptide inhibiting the motility of the mature oviduct in the
RT   cuttlefish, Sepia officinalis.";
RL   Peptides 18:1469-1474(1997).
CC   -!- FUNCTION: Regulatory neuropeptide with myotropic activity
CC       targeting the distal oviduct. Inhibits the motility of the oviduct
CC       by decreasing tonus, frequency and amplitude of contractions.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- MASS SPECTROMETRY: MW=259.9; METHOD=MALDI; RANGE=1-2; NOTE=Ref.1.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   MOD_RES       2       2       Tryptophan amide.
SQ   SEQUENCE   2 AA;  261 MW;  7378100000000000 CRC64;

  Query Match             28.6%;  Score 6;  DB 1;  Length 2;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 G 2
              |
Db          1 G 1


RESULT 4
GRWM_HUMAN
ID   GRWM_HUMAN     STANDARD;      PRT;     3 AA.
AC   P01157;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Growth-modulating peptide.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=77162369; PubMed=858356;
RA   Schlesinger D.H., Pickart L., Thaler M.M.;
RT   "Growth-modulating serum tripeptide is glycyl-histidyl-lysine.";
RL   Experientia 33:324-325(1977).
CC   -!- MISCELLANEOUS: This serum tripeptide has been found to stimulate
CC       growth of some cell types and to inhibit other types in vitro.
DR   GO; GO:0001558; P:regulation of cell growth; NAS.
KW   Direct protein sequencing.
SQ   SEQUENCE   3 AA;  340 MW;  6331E81000000000 CRC64;

  Query Match             28.6%;  Score 6;  DB 1;  Length 3;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 G 2
              |
Db          1 G 1


RESULT 5
ACH1_ACHFU
ID   ACH1_ACHFU     STANDARD;      PRT;     4 AA.
AC   P35904;
DT   01-JUN-1994 (Rel. 29, Created)
DT   01-JUN-1994 (Rel. 29, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Achatin-I.
OS   Achatina fulica (Giant African snail).
OC   Eukaryota; Metazoa; Mollusca; Gastropoda; Pulmonata; Stylommatophora;
OC   Sigmurethra; Achatinoidea; Achatinidae; Achatina.
OX   NCBI_TaxID=6530;
RN   [1]
RP   SEQUENCE, CHARACTERIZATION, AND SYNTHESIS.
RC   STRAIN=Ferussac; TISSUE=Ganglion;
RX   MEDLINE=89273551; PubMed=2597281;
RA   Kamatani Y., Minakata H., Kenny P.T.M., Iwashita T., Watanabe K.,
RA   Funase K., Sun X.P., Yongsiri A., Kim K.H., Novales-Li P.,
RA   Novales E.T., Kanapi C.G., Takeuchi H., Nomoto K.;
RT   "Achatin-I, an endogenous neuroexcitatory tetrapeptide from Achatina
RT   fulica Ferussac containing a D-amino acid residue.";
RL   Biochem. Biophys. Res. Commun. 160:1015-1020(1989).
RN   [2]
RP   CHARACTERIZATION.
RC   STRAIN=Ferussac; TISSUE=Heart atrium;
RX   MEDLINE=91264856; PubMed=1675568;
RA   Fujimoto K., Kubota I., Yasuda-Kamatani Y., Minakata H., Nomoto K.,
RA   Yoshida M., Harada A., Muneoka Y., Kobayashi M.;
RT   "Purification of achatin-I from the atria of the African giant snail,
RT   Achatina fulica, and its possible function.";
RL   Biochem. Biophys. Res. Commun. 177:847-853(1991).
RN   [3]
RP   CRISTALLIZATION.
RX   MEDLINE=93014529; PubMed=1399265;
RA   Ishida T., In Y., Doi M., Inoue M., Yasuda-Kamatani Y., Minakata H.,
RA   Iwashita T., Nomoto K.;
RT   "Crystal structure and molecular conformation of achatin-I (H-Gly-D-
RT   Phe-Ala-Asp-OH), an endogenous neuropeptide containing a D-amino acid
RT   residue.";
RL   Int. J. Pept. Protein Res. 39:258-264(1992).
CC   -!- FUNCTION: Neuroexcitatory peptide; increases the impulse frequency
CC       and produces a spike broadening of the identified heart excitatory
CC       neuron (PON); also enhances the amplitude and frequency of the
CC       heart beat. Has also an effect on several other muscles.
DR   PIR; A32480; A32480.
KW   D-amino acid; Direct protein sequencing; Hormone.
FT   MOD_RES       2       2       D-phenylalanine.
SQ   SEQUENCE   4 AA;  408 MW;  6AADD9C810000000 CRC64;

  Query Match             28.6%;  Score 6;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 G 2
              |
Db          1 G 1


RESULT 6
DCML_PSECH
ID   DCML_PSECH     STANDARD;      PRT;     4 AA.
AC   P19916;
DT   01-FEB-1991 (Rel. 17, Created)
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DT   01-FEB-1991 (Rel. 17, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Carbon monoxide dehydrogenase large chain (EC 1.2.99.2) (CO
DE   dehydrogenase subunit L) (CO-DH L) (Fragment).
GN   Name=cutL;
OS   Pseudomonas carboxydohydrogena.
OC   Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
OC   Bradyrhizobiaceae.
OX   NCBI_TaxID=290;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=90055678; PubMed=2818128;
RA   Kraut M., Hugendieck I., Herwig S., Meyer O.;
RT   "Homology and distribution of CO dehydrogenase structural genes in
RT   carboxydotrophic bacteria.";
RL   Arch. Microbiol. 152:335-341(1989).
CC   -!- FUNCTION: Catalyzes the oxidation of carbon monoxide to carbon
CC       dioxide.
CC   -!- CATALYTIC ACTIVITY: CO + H(2)O + A = CO(2) + AH(2).
CC   -!- COFACTOR: Binds 1 copper(I) ion, 1 molybdenum(VI) ion and 1
CC       molybdopterin cytosine dinucleotide (MCD) per subunit.
CC   -!- SUBUNIT: Heterotrimer consisting of a large, a medium and a small
CC       subunit.
DR   PIR; PL0140; PL0140.
KW   Direct protein sequencing; Molybdenum; Oxidoreductase.
FT   NON_TER       4       4
SQ   SEQUENCE   4 AA;  441 MW;  7761E876F0000000 CRC64;

  Query Match             28.6%;  Score 6;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 G 2
               |
Db          2 G 2


RESULT 7
EOSI_HUMAN
ID   EOSI_HUMAN     STANDARD;      PRT;     4 AA.
AC   P02731;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Eosinophilotactic peptides.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=76078412; PubMed=1060093;
RA   Goetzl E.J., Austen K.F.;
RT   "Purification and synthesis of eosinophilotactic tetrapeptides of
RT   human lung tissue: identification as eosinophil chemotactic factor of
RT   anaphylaxis.";
RL   Proc. Natl. Acad. Sci. U.S.A. 72:4123-4127(1975).
CC   -!- MISCELLANEOUS: These peptides are released from mast cells in lung
CC       (and other tissues) during hypersensitivity reactions
CC       (anaphylaxis). Their activities, preferentially affecting
CC       eosinophils, include chemotaxis, chemotactic deactivation, release
CC       of enzymes, and stimulation of the hexose monophosphate shunt.
DR   GO; GO:0006935; P:chemotaxis; IDA.
DR   GO; GO:0006955; P:immune response; IDA.
KW   Direct protein sequencing.
FT   VARIANT       1       1       V -> A (in other peptide).
FT                                 /FTId=VAR_005201.
SQ   SEQUENCE   4 AA;  390 MW;  6B05B862A0000000 CRC64;

  Query Match             28.6%;  Score 6;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 G 2
               |
Db          2 G 2


RESULT 8
FAR3_HIRME
ID   FAR3_HIRME     STANDARD;      PRT;     4 AA.
AC   P42562;
DT   01-NOV-1995 (Rel. 32, Created)
DT   01-NOV-1995 (Rel. 32, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   FMRFamide-like neuropeptide YLRF-amide.
OS   Hirudo medicinalis (Medicinal leech).
OC   Eukaryota; Metazoa; Annelida; Clitellata; Hirudinida; Hirudinea;
OC   Arhynchobdellida; Hirudiniformes; Hirudinidae; Hirudo.
OX   NCBI_TaxID=6421;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=92195954; PubMed=1686933; DOI=10.1016/0196-9781(91)90035-N;
RA   Evans B.D., Pohl J., Kartsonis M.A., Calabrese R.L.;
RT   "Identification of RFamide neuropeptides in the medicinal leech.";
RL   Peptides 12:897-908(1991).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC       family.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   MOD_RES       4       4       Phenylalanine amide.
SQ   SEQUENCE   4 AA;  598 MW;  69D4073B30000000 CRC64;

  Query Match             28.6%;  Score 6;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 F 1
               |
Db          4 F 4


RESULT 9
FAR4_HIRME
ID   FAR4_HIRME     STANDARD;      PRT;     4 AA.
AC   P42563;
DT   01-NOV-1995 (Rel. 32, Created)
DT   01-NOV-1995 (Rel. 32, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   FMRFamide-like neuropeptide YMRF-amide.
OS   Hirudo medicinalis (Medicinal leech).
OC   Eukaryota; Metazoa; Annelida; Clitellata; Hirudinida; Hirudinea;
OC   Arhynchobdellida; Hirudiniformes; Hirudinidae; Hirudo.
OX   NCBI_TaxID=6421;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=92195954; PubMed=1686933; DOI=10.1016/0196-9781(91)90035-N;
RA   Evans B.D., Pohl J., Kartsonis M.A., Calabrese R.L.;
RT   "Identification of RFamide neuropeptides in the medicinal leech.";
RL   Peptides 12:897-908(1991).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC       family.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   MOD_RES       4       4       Phenylalanine amide.
SQ   SEQUENCE   4 AA;  616 MW;  69D4068B30000000 CRC64;

  Query Match             28.6%;  Score 6;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 F 1
               |
Db          4 F 4
```

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RESULT 10
FFKA_ANTEL
ID   FFKA_ANTEL     STANDARD;      PRT;     4 AA.
AC   P58705;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Antho-KAamide.
OS   Anthopleura elegantissima (Sea anemone).
OC   Eukaryota; Metazoa; Cnidaria; Anthozoa; Zoantharia; Actiniaria;
OC   Nynantheae; Actiniidae; Anthopleura.
OX   NCBI_TaxID=6110;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=92028852; PubMed=1681803;
RA   Nothacker H.-P., Rinehart K.L. Jr., Grimmelikhuijzen C.J.P.;
RT   "Isolation of L-3-phenyllactyl-Phe-Lys-Ala-NH2 (Antho-KAamide); a
RT   novel neuropeptide from sea anemones.";
RL   Biochem. Biophys. Res. Commun. 179:1205-1211(1991).
RN   [2]
RP   FUNCTION.
RX   MEDLINE=93391436; PubMed=8397415;
RA   McFarlane I.D., Hudman D., Nothacker H.-P., Grimmelikhuijzen C.J.P.;
RT   "The expansion behaviour of sea anemones may be coordinated by two
RT   inhibitory neuropeptides, Antho-KAamide and Antho-RIamide.";
RL   Proc. R. Soc. Lond., B, Biol. Sci. 253:183-188(1993).
CC   -!- FUNCTION: Inhibits spontaneous contractions in several muscle
CC       groups. May be involved in the expansion phase of feeding
CC       behaviour in sea anemones.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Neuron specific.
DR   PIR; JQ1273; JQ1273.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   MOD_RES       1      1       3-phenyllactic acid.
FT   MOD_RES       4      4       Alanine amide.
SQ   SEQUENCE   4 AA;  512 MW;  6DD339C9A0000000 CRC64;

  Query Match             28.6%;  Score 6;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 F 1
              |
Db          1 F 1


RESULT 11
FLRF_HIRME
ID   FLRF_HIRME     STANDARD;      PRT;     4 AA.
AC   P42561;
DT   01-NOV-1995 (Rel. 32, Created)
DT   01-NOV-1995 (Rel. 32, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   FLRFamide.
OS   Hirudo medicinalis (Medicinal leech), and
OS   Helisoma trivolvis (Snail).
OC   Eukaryota; Metazoa; Annelida; Clitellata; Hirudinida; Hirudinea;
OC   Arhynchobdellida; Hirudiniformes; Hirudinidae; Hirudo.
OX   NCBI_TaxID=6421, 27815;
RN   [1]
RP   SEQUENCE.
RC   SPECIES=H.medicinalis;
RX   MEDLINE=92195954; PubMed=1686933; DOI=10.1016/0196-9781(91)90035-N;
RA   Evans B.D., Pohl J., Kartsonis M.A., Calabrese R.L.;
RT   "Identification of RFamide neuropeptides in the medicinal leech.";
RL   Peptides 12:897-908(1991).
RN   [2]
RP   SEQUENCE.
RC   SPECIES=H.trivolvis; TISSUE=Kidney;
RX   MEDLINE=94286417; PubMed=7912428; DOI=10.1016/0196-9781(94)90166-X;
RA   Madrid K.P., Price D.A., Greenberg M.J., Khan H.R., Saleuddin A.S.M.;
RT   "FMRFamide-related peptides from the kidney of the snail, Helisoma
RT   trivolvis.";
RL   Peptides 15:31-36(1994).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC       family.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   MOD_RES       4      4       Phenylalanine amide.
SQ   SEQUENCE   4 AA;  582 MW;  69D40729A0000000 CRC64;

  Query Match             28.6%;  Score 6;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 F 1
              |
Db          1 F 1


RESULT 12
FLRN_ANTEL
ID   FLRN_ANTEL     STANDARD;      PRT;     4 AA.
AC   P58707;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Antho-RNamide.
OS   Anthopleura elegantissima (Sea anemone).
OC   Eukaryota; Metazoa; Cnidaria; Anthozoa; Zoantharia; Actiniaria;
OC   Nynantheae; Actiniidae; Anthopleura.
OX   NCBI_TaxID=6110;
RN   [1]
RP   SEQUENCE, AND MASS SPECTROMETRY.
RX   MEDLINE=90319122; PubMed=1973541;
RA   Grimmelikhuijzen C.J.P., Rinehart K.L. Jr., Jacob E., Graff D.,
RA   Reinscheid R.K., Nothacker H.-P., Staley A.L.;
RT   "Isolation of L-3-phenyllactyl-Leu-Arg-Asn-NH2 (Antho-RNamide), a sea
RT   anemone neuropeptide containing an unusual amino-terminal blocking
RT   group.";
RL   Proc. Natl. Acad. Sci. U.S.A. 87:5410-5414(1990).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Neuron specific.
CC   -!- MASS SPECTROMETRY: MW=549.3; METHOD=FAB; RANGE=1-4; NOTE=Ref.1.
DR   PIR; A35779; A35779.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   MOD_RES       1      1       3-phenyllactic acid.
FT   MOD_RES       4      4       Asparagine amide.
SQ   SEQUENCE   4 AA;  549 MW;  64540729A0000000 CRC64;

  Query Match             28.6%;  Score 6;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 F 1
              |
Db          1 F 1


RESULT 13
FMRF_MACNI
ID   FMRF_MACNI     STANDARD;      PRT;     4 AA.
AC   P01162;
DT   21-JUL-1986 (Rel. 01, Created)
DT   21-JUL-1986 (Rel. 01, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   FMRFamide (Peak C) (Cardioexcitatory neuropeptide).
OS   Macrocallista nimbosa (Sun-ray clam),
OS   Nereis virens (Sandworm),
OS   Hirudo medicinalis (Medicinal leech), and
OS   Helisoma trivolvis (Snail).
OC   Eukaryota; Metazoa; Mollusca; Bivalvia; Heteroconchia; Veneroida;
OC   Veneroidea; Veneridae; Macrocallista.
OX   NCBI_TaxID=6594, 6353, 6421, 27815;
RN   [1]
RP   SEQUENCE, AND SYNTHESIS.
```

```
RC   SPECIES=M.nimbosa; TISSUE=Cerebral pedal, and Visceral ganglion;
RX   MEDLINE=77215956; PubMed=877582;
RA   Price D.A., Greenberg M.J.;
RT   "Structure of a molluscan cardioexcitatory neuropeptide.";
RL   Science 197:670-671(1977).
RN   [2]
RP   SEQUENCE, AND CHARACTERIZATION.
RC   SPECIES=M.nimbosa; TISSUE=Ganglion;
RX   MEDLINE=78012038; PubMed=909875;
RA   Price D.A., Greenberg M.J.;
RT   "Purification and characterization of a cardioexcitatory neuropeptide
RT   from the central ganglia of a bivalve mollusc.";
RL   Prep. Biochem. 7:261-281(1977).
RN   [3]
RP   SEQUENCE.
RC   SPECIES=N.virens;
RX   MEDLINE=90259866; PubMed=2342992; DOI=10.1016/0196-9781(90)90113-J;
RA   Krajniak K.G., Price D.A.;
RT   "Authentic FMRFamide is present in the polychaete Nereis virens.";
RL   Peptides 11:75-77(1990).
RN   [4]
RP   SEQUENCE.
RC   SPECIES=H.medicinalis;
RX   MEDLINE=92195954; PubMed=1686933; DOI=10.1016/0196-9781(91)90035-N;
RA   Evans B.D., Pohl J., Kartsonis M.A., Calabrese R.L.;
RT   "Identification of RFamide neuropeptides in the medicinal leech.";
RL   Peptides 12:897-908(1991).
RN   [5]
RP   SEQUENCE.
RC   SPECIES=H.trivolvis; TISSUE=Kidney;
RX   MEDLINE=94286417; PubMed=7912428; DOI=10.1016/0196-9781(94)90166-X;
RA   Madrid K.P., Price D.A., Greenberg M.J., Khan H.R., Saleuddin A.S.M.;
RT   "FMRFamide-related peptides from the kidney of the snail, Helisoma
RT   trivolvis.";
RL   Peptides 15:31-36(1994).
CC   -!- FUNCTION: Myoactive; cardioexcitatory substance. Pharmacological
CC       activities include augmentation, induction, and regularization of
CC       cardiac contraction.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC       family.
DR   PIR; A01426; ECNK.
DR   PIR; A60418; A60418.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   MOD_RES       4       4       Phenylalanine amide.
SQ   SEQUENCE   4 AA;  600 MW;  69D40699A0000000 CRC64;

  Query Match             28.6%;  Score 6;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 F 1
              |
Db          1 F 1


RESULT 14
FYRI_ANTEL
ID   FYRI_ANTEL     STANDARD;      PRT;     4 AA.
AC   P58706;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Antho-RIamide I [Contains: Antho-RIamide II].
OS   Anthopleura elegantissima (Sea anemone).
OC   Eukaryota; Metazoa; Cnidaria; Anthozoa; Zoantharia; Actiniaria;
OC   Nynantheae; Actiniidae; Anthopleura.
OX   NCBI_TaxID=6110;
RN   [1]
RP   SEQUENCE.
RX   MEDLINE=92270459; PubMed=1821096; DOI=10.1016/0196-9781(91)90190-Z;
RA   Nothacker H.-P., Rinehart K.L. Jr., McFarlane I.D.,
RA   Grimmelikhuijzen C.J.P.;
RT   "Isolation of two novel neuropeptides from sea anemones: the unusual,
RT   biologically active L-3-phenyllactyl-Tyr-Arg-Ile-NH2 and its des-
RT   phenyllactyl fragment Tyr-Arg-Ile-NH2.";
RL   Peptides 12:1165-1173(1991).
RN   [2]
RP   FUNCTION.
RX   MEDLINE=93391436; PubMed=8397415;
RA   McFarlane I.D., Hudman D., Nothacker H.-P., Grimmelikhuijzen C.J.P.;
RT   "The expansion behaviour of sea anemones may be coordinated by two
RT   inhibitory neuropeptides, Antho-KAamide and Antho-RIamide.";
RL   Proc. R. Soc. Lond., B, Biol. Sci. 253:183-188(1993).
CC   -!- FUNCTION: Inhibits spontaneous contractions in several muscle
CC       groups. May be involved in the expansion phase of feeding
CC       behaviour in sea anemones.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Neuron specific.
KW   Amidation; Direct protein sequencing; Neuropeptide.
FT   CHAIN         1       4       Antho-RIamide I.
FT   CHAIN         2       4       Antho-RIamide II.
FT   MOD_RES       1       1       3-phenyllactic acid.
FT   MOD_RES       4       4       Isoleucine amide.
SQ   SEQUENCE   4 AA;  598 MW;  60441B59A0000000 CRC64;

  Query Match             28.6%;  Score 6;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 F 1
              |
Db          1 F 1


RESULT 15
OCP3_OCTMI
ID   OCP3_OCTMI     STANDARD;      PRT;     4 AA.
AC   P58649;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Cardioactive peptides Ocp-3/Ocp-4.
OS   Octopus minor (Octopus).
OC   Eukaryota; Metazoa; Mollusca; Cephalopoda; Coleoidea; Neocoleoidea;
OC   Octopodiformes; Octopoda; Incirrata; Octopodidae; Octopus.
OX   NCBI_TaxID=89766;
RN   [1]
RP   SEQUENCE, SYNTHESIS, MASS SPECTROMETRY, AND CHARACTERIZATION.
RC   TISSUE=Brain;
RX   MEDLINE=20336815; PubMed=10876044; DOI=10.1016/S0196-9781(00)00201-1;
RA   Iwakoshi E., Hisada M., Minakata H.;
RT   "Cardioactive peptides isolated from the brain of a Japanese octopus,
RT   Octopus minor.";
RL   Peptides 21:623-630(2000).
CC   -!- FUNCTION: Cardioactive; has both positive chronotropic and
CC       inotropic effects on the heart. Ocp-4 is a 1000 time less active
CC       than Ocp-3.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- PTM: Ocp-4 has D-Ser instead of L-Ser.
CC   -!- MASS SPECTROMETRY: MW=395.2; METHOD=MALDI; RANGE=1-4; NOTE=Ref.1.
KW   D-amino acid; Direct protein sequencing; Hormone.
FT   MOD_RES       2       2       D-serine (in form Ocp-4).
SQ   SEQUENCE   4 AA;  463 MW;  6AB365B810000000 CRC64;

  Query Match             28.6%;  Score 6;  DB 1;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+06;
  Matches    1;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 G 2
              |
Db          1 G 1


Search completed: March 23, 2005, 15:10:03
Job time : 172 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 23, 2005, 14:52:02 ; Search time 164 Seconds
(without alignments)
9.433 Million cell updates/sec

Title: SEQ3
Perfect score: 21
Sequence: 1 fglm 4

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 19815

Minimum DB seq length: 0
Maximum DB seq length: 4

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_16Dec04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	21	100.0	4	2	AAW41683	Aaw41683 Peptide u
2	21	100.0	4	2	AAY31075	Aay31075 Non-cross
3	21	100.0	4	3	AAB23026	Aab23026 Human/rat
4	21	100.0	4	3	AAY67577	Aay67577 P antagon
5	21	100.0	4	4	AAB91447	Aab91447 Tachykini
6	21	100.0	4	5	ABB10091	Abb10091 Substance
7	21	100.0	4	5	AAU77846	Aau77846 Tachykini
8	21	100.0	4	7	ADE94198	Ade94198 High acti
9	21	100.0	4	8	ADR43772	Adr43772 Human mag
10	18	85.7	4	1	AAP61654	Aap61654 Sequence
11	18	85.7	4	1	AAP71301	Aap71301 Peptide c
12	18	85.7	4	2	AAW41686	Aaw41686 Tetrapept
13	18	85.7	4	5	ABB10092	Abb10092 Substance
14	16	76.2	4	1	AAP61707	Aap61707 Sequence
15	16	76.2	4	1	AAP71312	Aap71312 Peptide c
16	16	76.2	4	2	AAY23485	Aay23485 V beta 6
17	16	76.2	4	3	AAB12293	Aab12293 Prodrug o
18	16	76.2	4	4	AAG62647	Aag62647 Typical t
19	16	76.2	4	5	ABB88046	Abb88046 Enzyme cl
20	16	76.2	4	8	ADL78809	Adl78809 Exemplary
21	15	71.4	3	3	AAY67578	Aay67578 P antagon
22	15	71.4	3	4	AAB91448	Aab91448 Tachykini
23	15	71.4	4	1	AAP60334	Aap60334 Peptide w
24	15	71.4	4	2	AAW77469	Aaw77469 Tetrapept
25	15	71.4	4	2	AAW41684	Aaw41684 Tetrapept
26	15	71.4	4	2	AAW41685	Aaw41685 Tetrapept
27	15	71.4	4	4	AAB91795	Aab91795 Amyloid b
28	15	71.4	4	4	AAB91822	Aab91822 Amyloid b
29	14	66.7	4	1	AAP61659	Aap61659 Sequence
30	14	66.7	4	1	AAP71306	Aap71306 Peptide c
31	14	66.7	4	2	AAR34486	Aar34486 FGIA. 8/1
32	14	66.7	4	2	AAR46020	Aar46020 Serine pr
33	14	66.7	4	2	AAR93149	Aar93149 Mycobacte
34	14	66.7	4	3	AAB12292	Aab12292 Prodrug o
35	14	66.7	4	4	AAB91714	Aab91714 Opioid pe
36	14	66.7	4	5	ABB88045	Abb88045 Enzyme cl
37	14	66.7	4	5	ABG32223	Abg32223 Sheep col
38	14	66.7	4	8	ADQ91509	Adq91509 HIV trunc
39	14	66.7	4	8	ADS74433	Ads74433 Ovine col
40	13	61.9	3	5	ABG77484	Abg77484 Targettin
41	13	61.9	4	1	AAP61658	Aap61658 Sequence
42	13	61.9	4	1	AAP71287	Aap71287 Opiate bi
43	13	61.9	4	1	AAP82691	Aap82691 Renin inh
44	13	61.9	4	2	AAR15768	Aar15768 Farnesyl-
45	13	61.9	4	2	AAR47299	Aar47299 Peptide a

ALIGNMENTS

RESULT 1
AAW41683
ID AAW41683 standard; peptide; 4 AA.
XX
AC AAW41683;
XX
DT 09-JUN-1998 (first entry)
XX
DE Peptide used in ophthalmic drug to treat corneal disorders.
XX
KW Ophthalmic drug; corneal disorder; ulcer; epithelial peeling; dry eye;
KW keratitis; insulin like growth factor-I; IGF-I; eye drop.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 4
FT /note= "C-terminal amide"
XX
PN WO9749419-A1.
XX
PD 31-DEC-1997.
XX
PF 11-JUN-1997; 97WO-JP002015.
XX
PR 26-JUN-1996; 96JP-00165612.
XX
PA (SANT) SANTEN PHARM CO LTD.
XX
PI Nishida T, Nakamura M, Nakata K;
XX
DR WPI; 1998-076907/07.
XX
PT Ophthalmic drug composition containing tetra:peptide - is useful as
PT corneal disorder remedy for corneal ulcer, corneal epithelial peeling,
PT dry eye, keratitis.
XX
PS Claim 1; Page 15; 19pp; Japanese.
XX
CC The present sequence represents a tetrapeptide which is the active
CC ingredient in an ophthalmic drug composition. It is used, together with
CC insulin like growth factor-I (IGF-I), to treat corneal disorders such as
CC corneal ulcer, corneal epithelial peeling, dry eye and keratitis. The
CC dosage is 0.1-5000 (preferably 1-1000) mg/day of the tetrapeptide and
CC 0.001-100 (preferably 0.01-10) mg/day of IGF-I. The preferable form of
CC the composition is eye drops
XX
SQ Sequence 4 AA;

```
  Query Match             100.0%;  Score 21;  DB 2;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGLM 4
              ||||
Db          1 FGLM 4


RESULT 2
AAY31075
ID   AAY31075 standard; peptide; 4 AA.
XX
AC   AAY31075;
XX
DT   21-OCT-1999  (first entry)
XX
DE   Non-crosslinked protein particle peptide 124.
XX
KW   Non-crosslinked protein particle; diagnostic; therapy; monodisperse;
KW   albumin; haemoglobin; nanometer; micrometer; clearance.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   4
FT                   /note= "C-terminal amide"
XX
PN   US5945033-A.
XX
PD   31-AUG-1999.
XX
PF   12-NOV-1996;   96US-00747137.
XX
PR   15-JAN-1991;   91US-00641720.
PR   13-OCT-1992;   92US-00959560.
PR   01-JUN-1993;   93US-00069831.
PR   14-MAR-1994;   94US-00212546.
XX
PA   (HEMO-) HEMOSPHERE INC.
XX
PI   Yen RCK;
XX
DR   WPI; 1999-508153/42.
XX
PT   Non-crosslinked protein particles for therapeutic and diagnostic use.
XX
PS   Example 22; Col 103-104; 65pp; English.
XX
CC   This invention describes a novel aqueous suspension of monodisperse
CC   particles on non-crosslinked, non-denatured albumin (50-5000 nm) which is
CC   stable against dissolving upon dilution with an alcohol-free aqueous
CC   medium. The method involves (a) forming an aqueous solution containing
CC   albumin and hemoglobin and (b) treating the aqueous solution with an
CC   alcohol to cause the solution to become turbid. The particles are useful
CC   as agents for in vivo administration, either of their own administration
CC   or as a vehicle for other therapeutic or diagnostic agents. The method
CC   permits the formation of albumin and hemoglobin particles in the
CC   nanometer and micrometer size range, in a form closer to their natural
CC   form than the forms of the prior art. The particles therefore constitute
CC   a more closely controlled agent for in vivo administration, with greater
CC   ease of clearance from the body after their period of usefulness.
CC   AAY30952-Y31135 represent peptides used in the method of the invention
XX
SQ   Sequence 4 AA;

  Query Match             100.0%;  Score 21;  DB 2;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGLM 4
              ||||
Db          1 FGLM 4


RESULT 3
AAB23026
ID   AAB23026 standard; peptide; 4 AA.
XX
AC   AAB23026;
XX
DT   16-JAN-2001  (first entry)
XX
DE   Human/rat tachykinin Substance P C-terminal tetrapeptide.
XX
KW   Substance P; tachykinin; human; rat; magnesium binding defect;
KW   sodium sensitive essential hypertension; insulin resistance;
KW   type 2 diabetes; antibody; immunoassay; quantification.
XX
OS   Homo sapiens.
OS   Rattus sp.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   4
FT                   /note= "C-terminal amide"
XX
PN   WO200054053-A1.
XX
PD   14-SEP-2000.
XX
PF   09-MAR-2000; 2000WO-US003707.
XX
PR   10-MAR-1999;   99US-00265690.
XX
PA   (WELL/) WELLS I C.
XX
PI   Wells IC;
XX
DR   WPI; 2000-587457/55.
XX
PT   Detecting magnesium binding defects associated with abnormal
PT   physiological states such as sodium-sensitive essential hypertension and
PT   type 2 insulin-resistant diabetes mellitus, comprises measuring a
PT   specific pentapeptide in blood.
XX
PS   Disclosure; Page 5; 21pp; English.
XX
CC   The inevntion relates to a method for detecting magnesium binding
CC   defects. The method comprises quantitating a tachykinin C-terminal
CC   pentapeptide (e.g., AAB23025) and its degradation products (e.g.,
CC   AAB23026) in blood using an antibody specific for the generalised
CC   mammalian tachykinin C-terminal pentapeptide Phe-(Phe/Val)-Gly-Leu-Met-
CC   NH2 (AAB23028). The method is useful for detecting cellular magnesium
CC   binding defects which are associated with abnormal physiological states
CC   such as sodium-sensitive essential hypertension and type 2 diabetes
CC   mellitus. The present sequence represents the C-terminal 4 amino acids of
CC   the tachykinin Substance P (AAB23027) from human and rat. This is a
CC   degradation product of the Substance P C-terminal pentapeptide (AAB23025)
CC   and may also be assayed according to the method of the invention
XX
SQ   Sequence 4 AA;

  Query Match             100.0%;  Score 21;  DB 3;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGLM 4
              ||||
Db          1 FGLM 4


RESULT 4
AAY67577
ID   AAY67577 standard; peptide; 4 AA.
XX
```

```
AC   AAY67577;
XX
DT   19-MAY-2000  (first entry)
XX
DE   P antagonist peptide #5.
XX
KW   Pharmaceutical; veterinary; gonadotropin-releasing hormone; GnRH;
KW   pore-forming agent; lecithin; stearin; P antagonist.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   4
FT                   /note= "C-terminal amide"
XX
PN   WO200004897-A1.
XX
PD   03-FEB-2000.
XX
PF   20-JUL-1999;   99WO-AU000585.
XX
PR   20-JUL-1998;   98AU-00004730.
PR   20-JUL-1998;   98AU-00004731.
PR   13-MAY-1999;   99AU-00000324.
XX
PA   (PEPT-) PEPTECH LTD.
XX
PI   Trigg TE,  Walsh JD,  Rathjen DA;
XX
DR   WPI; 2000-182528/16.
XX
PT   Bioimplant formulation for sustained delivery of an active agent over 7
PT   days to 2 years, comprises active agent, pore-forming agent and stearin.
XX
PS   Claim 20; Page 21; 37pp; English.
XX
CC   The invention provides a pharmaceutical and/or veterinary formulation
CC   that comprises 2 -30% of active agents which include a gonadotropin-
CC   releasing hormone (GnRH) agonist, 0.5 - 20% of a pore-forming agent which
CC   is not lecithin, and the remainder stearin. The formulation is useful as
CC   a sustained release implant which can deliver the active agent for a
CC   period of 7 days to 2 years. Sequences AAY67573-578 represent P
CC   antagonist peptides used in the composition
XX
SQ   Sequence 4 AA;

  Query Match             100.0%;  Score 21;  DB 3;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGLM 4
              ||||
Db          1 FGLM 4


RESULT 5
AAB91447
ID   AAB91447 standard; peptide; 4 AA.
XX
AC   AAB91447;
XX
DT   22-JUN-2001  (first entry)
XX
DE   Tachykinins peptide SEQ ID NO:623.
XX
KW   Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW   blood component; modification; succinimidyl; maleimido group; amino;
KW   hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200069900-A2.
XX
PD   23-NOV-2000.
XX
PF   17-MAY-2000; 2000WO-US013576.
XX
PR   17-MAY-1999;   99US-0134406P.
PR   10-SEP-1999;   99US-0153406P.
PR   15-OCT-1999;   99US-0159783P.
XX
PA   (CONJ-) CONJUCHEM INC.
XX
PI   Bridon DP,  Ezrin AM,  Milner PG,  Holmes DL,  Thibaudeau K;
XX
DR   WPI; 2001-112059/12.
XX
PT   Modifying and attaching therapeutic peptides to albumin prevents
PT   peptidase degradation, useful for increasing length of in vivo activity.
XX
PS   Disclosure; Page 402; 733pp; English.
XX
CC   The present invention describes a modified therapeutic peptide (I)
CC   comprising a therapeutically active amino acid region (III) and a
CC   reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
CC   a less therapeutically active amino acid region (IV), which covalently
CC   bonds with amino/hydroxyl/thiol groups on blood components to form a
CC   peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
CC   (I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC   factors and neurotransmitters, to protect them from peptidase activity in
CC   vivo for the treatment of various disorders. Endogenous therapeutic
CC   peptides are not suitable as drug candidates as they require frequent
CC   administration due to rapid degradation by peptidases in the body.
CC   Modifying and attaching therapeutic peptides to albumin prevents or
CC   reduces the action of peptidases to increase length of activity (half
CC   life) and specificity as bonding to large molecules decreases
CC   intracellular uptake and interference with physiological processes.
CC   AAB90829 to AAB92441 represent peptides which can be used in the
CC   exemplification of the present invention
XX
SQ   Sequence 4 AA;

  Query Match             100.0%;  Score 21;  DB 4;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGLM 4
              ||||
Db          1 FGLM 4


RESULT 6
ABB10091
ID   ABB10091 standard; peptide; 4 AA.
XX
AC   ABB10091;
XX
DT   26-JUL-2002  (first entry)
XX
DE   Substance P analog used in wound healing treatment#14.
XX
KW   Wound healing; insulin-like growth factor-I; tear; abrasion; skin ulcer;
KW   surgical incision; burn.
XX
OS   Unidentified.
XX
PN   WO200213853-A1.
XX
PD   21-FEB-2002.
XX
PF   10-AUG-2001; 2001WO-JP006933.
XX
PR   10-AUG-2000; 2000JP-00242489.
PR   28-NOV-2000; 2000JP-00361388.
XX
```

PA (SANT) SANTEN PHARM CO LTD.
PA (NISH/) NISHIDA T.
XX
PI Nishida T, Nakata K, Nakamura M;
XX
DR WPI; 2002-269153/31.
XX
PT Skin wound healing promoters or skin epidermal extension promoters
PT containing substance P analogs and insulin-like growth factor-I for
PT treating wounds like tear, abrasion, surgical incision, skin ulcers or
PT burns.
XX
PS Claim 3; Page 11; 20pp; Japanese.
XX
CC The invention relates to skin wound healing promoters, containing
CC substance P analogs or their pharmaceutically-acceptable salts, and
CC insulin-like growth factor-I as the active ingredient. The promoters are
CC for treating wounds like tears, abrasions, surgical incisions, or skin
CC ulcers and burns. The current sequence represents a substance P analog
CC for use in wound healing treatment
XX
SQ Sequence 4 AA;

Query Match 100.0%; Score 21; DB 5; Length 4;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGLM 4
||||
Db 1 FGLM 4

RESULT 7
AAU77846
ID AAU77846 standard; peptide; 4 AA.
XX
AC AAU77846;
XX
DT 05-JUN-2002 (first entry)
XX
DE Tachykinin N -terminal tetrapeptide.
XX
KW Tachykinin; substance P; hypertension; hypotensive; antidiabetic;
KW gynaecological; salt-insensitive hypertension; magnesium binding;
KW insulin resistance; type 2 diabetes mellitus; pre-eclampsia; eclampsia.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Modified-site 4. .4
FT /note= "C terminal-amide"
XX
PN WO200211714-A2.
XX
PD 14-FEB-2002.
XX
PF 09-AUG-2001; 2001WO-US024909.
XX
PR 09-AUG-2000; 2000US-00635266.
XX
PA (MAGN-) MAGNESIUM DIAGNOSTICS INC.
XX
PI Wells IC;
XX
DR WPI; 2002-280663/32.
XX
PT New monopeptides derived from butadienes, ethylenes and propanes are
PT magnesium binding defect antagonists, useful in the treatment of e.g.
PT hypertension, insulin resistance of type 2 diabetes mellitus and
PT eclampsia.
XX
PS Disclosure; Page 2; 38pp; English.
XX
CC This invention relates to novel therapeutic compounds and methods used
CC for treating mammals with disorders such as salt-insensitive
CC hypertension. The monopeptide compounds of the invention are derived from
CC butadienes, ethylenes and propanes. The compounds of the invention are
CC used to correct a defect in magnesium binding within the plasma membranes
CC of somatic cells which results in a decrease in the intracellular
CC concentration of magnesium ions. These compounds may be used in the
CC treatment of a mammal affected with magnesium binding defect, salt-
CC sensitive (particularly hypertension), insulin resistance of type 2
CC diabetes mellitus and pre-eclampsia/eclampsia. The compounds of the
CC invention have an advantage over prior art compounds in that these
CC compounds are biologically stable. The present sequence represents the a
CC tetrapeptide from the C terminal sequence of tachykinin known as
CC substance P, this peptide is sufficient to correct the magnesium binding
CC defect responsible for causing hypertension
XX
SQ Sequence 4 AA;

Query Match 100.0%; Score 21; DB 5; Length 4;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGLM 4
||||
Db 1 FGLM 4

RESULT 8
ADE94198
ID ADE94198 standard; peptide; 4 AA.
XX
AC ADE94198;
XX
DT 12-FEB-2004 (first entry)
XX
DE High activity minimal IGF-1-derived peptide fragment #10.
XX
KW ophthalmological; dermatological; vulnerary; insulin growth factor 1;
KW IGF-1; ophthalmology; dermatology; keratic injury; wound healing; skin;
KW corneal ulcer; exofoliation of corneal epithelium; keratitis; dry eye;
KW scratch; surgical cutting; skin ulcer; burns.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 4
FT /note= "amidated C-terminus"
XX
PN WO2003048192-A1.
XX
PD 12-JUN-2003.
XX
PF 03-DEC-2002; 2002WO-JP012632.
XX
PR 03-DEC-2001; 2001JP-00368103.
XX
PA (SANT) SANTEN PHARM CO LTD.
PA (NISH/) NISHIDA T.
XX
PI Nishida T, Inui M, Nakamura M;
XX
DR WPI; 2003-505280/47.
XX
PT Novel peptides based on minimum activity expression units of insulin-like
PT growth factor-1, applicable in remedies in ophthalmology and dermatology
PT for treating keratic injury and promoting wound healing in skin.
XX
PS Claim 3; Page 18; 25pp; Japanese.
XX
CC The invention relates to the determination of the smallest peptide
CC fragment of insulin growth factor 1 (IGF-1) with the highest activity for
CC use in ophthalmology and dermatology. The peptides are applicable in
CC remedies in ophthalmology and dermatology for treating keratic injury and

```
CC   promoting wound healing in the skin. The keratic injury is particularly
CC   corneal ulcer, exofoliation of corneal epithelium, keratitis or dry eye.
CC   The skin wound can be scratches, surgical cutting, skin ulcer, or burns.
CC   This sequence represents one of the peptides of the invention with IGF-1
CC   activity.
XX
SQ   Sequence 4 AA;

  Query Match             100.0%;  Score 21;  DB 7;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGLM 4
              ||||
Db          1 FGLM 4


RESULT 9
ADR43772
ID   ADR43772 standard; peptide; 4 AA.
XX
AC   ADR43772;
XX
DT   18-NOV-2004  (first entry)
XX
DE   Human magnesium binding defect (MgBD) peptide mimetic #2.
XX
KW   Magnesium binding defect; MgBD; MgBD binding defect peptide mimetic;
KW   physiological disorder; preeclampsia; pregnancy;
KW   salt-sensitive essential hypertension; type 2 diabetes mellitus; human.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   4
FT                   /label= OTHER
FT                   /note= "OTHER= C-terminal amide"
XX
PN   US2004171093-A1.
XX
PD   02-SEP-2004.
XX
PF   22-MAR-2004; 2004US-00805881.
XX
PR   10-MAR-1999;   99US-00265690.
PR   09-AUG-2000; 2000US-00635266.
PR   24-JAN-2002; 2002US-00053669.
PR   29-AUG-2002; 2002US-00230133.
PR   28-OCT-2003; 2003US-00695536.
XX
PA   (WELL/) WELLS I C.
XX
PI   Wells IC;
XX
DR   WPI; 2004-625105/60.
XX
PT   Assessing predisposition to physiological disorder associated with
PT   magnesium binding defect in individual, by measuring level of amidated
PT   peptides associated with magnesium binding defect in sample and comparing
PT   peptide level to standard.
XX
PS   Claim 1; SEQ ID NO 2; 21pp; English.
XX
CC   The invention relates to a method of assessing a predisposition to a
CC   physiological disorder associated with a magnesium binding defect in an
CC   individual, involving measuring the level of amidated peptides associated
CC   with the magnesium binding defect in a sample of body fluid of the
CC   individual and comparing the level of peptide to a standard, where a
CC   significantly lower level of the peptide is indicative of a
CC   predisposition of the individual to the physiological disorder. The
CC   invention also relates to a method of monitoring progress in treatment of
CC   a physiological disorder associated with a magnesium binding defect in an
CC   individual, involving comparing the level of peptide to the level of
CC   peptide after treatment, where a significant increase in the level of the
CC   peptide is indicative of the progress of treatment of the individual, a
CC   monoclonal antibody that specifically binds to a peptide or its peptide
CC   mimetic, a prognosis reagent for determining the presence of a magnesium
CC   binding defect, generating a deficit of plasma membrane tightly bound
CC   magnesium ion in mammalian somatic cells involving obtaining a sample of
CC   body fluid comprising somatic cells, collecting the somatic cells from
CC   the body fluid by centrifugation, resuspending the somatic cells in a
CC   cell stabilising buffer, removing a sample of the suspended somatic
CC   cells, measuring the level of tightly bound magnesium ion in the sample
CC   of the somatic cells and repeating the removing and measuring steps at
CC   subsequent times until the level of tightly bound magnesium is
CC   significantly reduced and the somatic cells remain intact, a method of
CC   identifying substances which promote binding of tightly bound magnesium
CC   ion to a plasma membrane of mammalian somatic cells involving suspending
CC   mammalian somatic cells having a deficit of plasma membrane tightly bound
CC   magnesium in a physiological medium including magnesium ion, adding a
CC   substance to be tested to the suspension and measuring the level of
CC   tightly bound magnesium ion in the plasma membrane of the somatic cells
CC   where a significant increase in the level of plasma membrane tightly
CC   bound magnesium after addition of the substance to be tested is
CC   indicative of promotion of binding by the substance, and a method for
CC   ameliorating or correcting a magnesium binding defect in an individual
CC   involving administering to the individual a substance which promotes
CC   binding of tightly bound magnesium ion to the plasma membrane of
CC   mammalian somatic cells. The methods are useful for assessing a
CC   predisposition to a physiological disorder associated with a magnesium
CC   binding defect in an individual, where the disorder is a predisposition
CC   to preeclampsia during pregnancy, salt-sensitive essential hypertension
CC   or type 2 diabetes mellitus associated with the magnesium binding defect.
CC   The method is also useful for ameliorating or correcting a magnesium
CC   binding defect (MgBD) in an individual. This sequence represents a human
CC   MgBD mimetic peptide of the invention.
XX
SQ   Sequence 4 AA;

  Query Match             100.0%;  Score 21;  DB 8;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+06;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGLM 4
              ||||
Db          1 FGLM 4


RESULT 10
AAP61654
ID   AAP61654 standard; peptide; 4 AA.
XX
AC   AAP61654;
XX
DT   25-MAR-2003  (revised)
DT   03-OCT-2002  (revised)
DT   21-AUG-1991  (first entry)
XX
DE   Sequence of peptide which inhibits cyclic-nucleotide independent protein
DE   kinase activity and mammalian cell growth.
XX
KW   Cell growth inhibitor; tumour cell growth inhibitor.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1
FT                   /label= Carbobenzoxy-Phe
FT   Misc-difference 4
FT                   /label= Leu-CH2Cl
XX
PN   US4582821-A.
XX
PD   15-APR-1986.
XX
PF   16-NOV-1983;   83US-00552255.
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```
XX
PR   16-NOV-1983;   83US-00552255.
XX
PA   (DUPO ) DU PONT DE NEMOURS & CO E I.
XX
PI   Kettner CA,  Racker E;
XX
DR   WPI; 1986-118872/18.
XX
PT   Inhibition of tumour cell growth - using peptide and aminoacid
PT   halo:methyl ketone(s).
XX
PS   Claim 1; Col 4; 9pp; English.
XX
CC   The cpds. of the invention inhibit protein phosphorylation. The inventors
CC   claim a process for inhibiting the growth of tumour cells in a medium
CC   which comprises contacting the cells with a cpd. of formula (AAP61654-
CC   P61661) or a physiologically acceptable salt. (Updated on 03-OCT-2002 to
CC   add missing OS field.) (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 4 AA;

  Query Match             85.7%;  Score 18;  DB 1;  Length 4;
  Best Local Similarity   75.0%;  Pred. No. 1.8e+06;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGLM 4
              |||:
Db          1 FGLL 4


RESULT 11
AAP71301
ID   AAP71301 standard; peptide; 4 AA.
XX
AC   AAP71301;
XX
DT   25-MAR-2003  (revised)
DT   15-MAY-1991  (first entry)
XX
DE   Peptide component of cpd. for treating picornavirus infections.
XX
KW   Picornaviridae; poliovirus; rhinovirus; antiviral agent.
XX
OS   Synthetic.
XX
PN   US4636492-A.
XX
PD   13-JAN-1987.
XX
PF   29-AUG-1984;   84US-00645426.
XX
PR   29-AUG-1984;   84US-00645426.
XX
PA   (DUPO ) DU PONT DE NEMOURS & CO E I.
XX
PI   Kettner CA,  Korant BD;
XX
DR   WPI; 1987-036897/05.
XX
PT   Treating picorna-virus infection with peptide halo:methyl ketone cpds. -
PT   esp. for treating polio virus and rhino virus infections.
XX
PS   Disclosure; Page 3; 10pp; English.
XX
CC   This peptide is useful as part of a peptide/halo-methyl ketone cpd., for
CC   treating picornavirus, egpolio- or rhinovirus infections. It inhibits the
CC   processing of picornavirus capsid proteins by virus encoded proteases.
CC   See AAP71302-13. See also US4652552. (Updated on 25-MAR-2003 to correct
CC   PA field.)
XX
SQ   Sequence 4 AA;

  Query Match             85.7%;  Score 18;  DB 1;  Length 4;
  Best Local Similarity   75.0%;  Pred. No. 1.8e+06;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGLM 4
              |||:
Db          1 FGLL 4


RESULT 12
AAW41686
ID   AAW41686 standard; peptide; 4 AA.
XX
AC   AAW41686;
XX
DT   09-JUN-1998  (first entry)
XX
DE   Tetrapeptide #3.
XX
KW   Ophthalmic drug; corneal disorder; ulcer; epithelial peeling; dry eye;
KW   keratitis; insulin like growth factor-I; IGF-I; eye drop.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   4
FT                   /note= "C-terminal amide"
XX
PN   WO9749419-A1.
XX
PD   31-DEC-1997.
XX
PF   11-JUN-1997;   97WO-JP002015.
XX
PR   26-JUN-1996;   96JP-00165612.
XX
PA   (SANT ) SANTEN PHARM CO LTD.
XX
PI   Nishida T,  Nakamura M,  Nakata K;
XX
DR   WPI; 1998-076907/07.
XX
PT   Ophthalmic drug composition containing tetra:peptide - is useful as
PT   corneal disorder remedy for corneal ulcer, corneal epithelial peeling,
PT   dry eye, keratitis.
XX
PS   Disclosure; Page 11; 19pp; Japanese.
XX
CC   This sequence is shown in the specification. The invention relates to an
CC   ophthalmic drug composition which contains Phe-Gly-Leu-Met-NH2 or its
CC   medicinally acceptable salts as the active ingredient. It is used,
CC   together with insulin like growth factor-I (IGF-I), to treat corneal
CC   disorders such as corneal ulcer, corneal epithelial peeling, dry eye and
CC   keratitis. The dosage is 0.1-5000 (preferably 1-1000) mg/day of the
CC   active ingredient and 0.001-100 (preferably 0.01-10) mg/day of IGF-I. The
CC   preferable form of the composition is eye drops
XX
SQ   Sequence 4 AA;

  Query Match             85.7%;  Score 18;  DB 2;  Length 4;
  Best Local Similarity   75.0%;  Pred. No. 1.8e+06;
  Matches    3;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGLM 4
              :|||
Db          1 YGLM 4


RESULT 13
ABB10092
ID   ABB10092 standard; peptide; 4 AA.
XX
AC   ABB10092;
```

XX
DT 26-JUL-2002 (first entry)
XX
DE Substance P analog used in wound healing treatment#15.
XX
KW Wound healing; insulin-like growth factor-I; tear; abrasion; skin ulcer;
KW surgical incision; burn.
XX
OS Unidentified.
XX
PN WO200213853-A1.
XX
PD 21-FEB-2002.
XX
PF 10-AUG-2001; 2001WO-JP006933.
XX
PR 10-AUG-2000; 2000JP-00242489.
PR 28-NOV-2000; 2000JP-00361388.
XX
PA (SANT) SANTEN PHARM CO LTD.
PA (NISH/) NISHIDA T.
XX
PI Nishida T, Nakata K, Nakamura M;
XX
DR WPI; 2002-269153/31.
XX
PT Skin wound healing promoters or skin epidermal extension promoters
PT containing substance P analogs and insulin-like growth factor-I for
PT treating wounds like tear, abrasion, surgical incision, skin ulcers or
PT burns.
XX
PS Disclosure; Page 4; 20pp; Japanese.
XX
CC The invention relates to skin wound healing promoters, containing
CC substance P analogs or their pharmaceutically-acceptable salts, and
CC insulin-like growth factor-I as the active ingredient. The promoters are
CC for treating wounds like tears, abrasions, surgical incisions, or skin
CC ulcers and burns. The current sequence represents a substance P analog
CC for use in wound healing treatment
XX
SQ Sequence 4 AA;

Query Match 85.7%; Score 18; DB 5; Length 4;
Best Local Similarity 75.0%; Pred. No. 1.8e+06;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGLM 4
:|||
Db 1 YGLM 4

RESULT 14
AAP61707
ID AAP61707 standard; peptide; 4 AA.
XX
AC AAP61707;
XX
DT 25-MAR-2003 (revised)
DT 03-OCT-2002 (revised)
DT 08-JUN-1991 (first entry)
XX
DE Sequence located immediately adjacent to and upstream of the cleavage
DE site within a virus-specified polypeptide precursor.
XX
KW Viral desease; diagnosis; picornavirus.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Misc-difference 1
FT /note= "bonede to Boc, Z, Suc, or MeOSuc; Z=carbobenzoxy;
FT Boc=t-Butyloxycarbonyl; Suc=Succinyl;
FT MeOSuc=Methoxysuccinyl"
FT Misc-difference 4
FT /note= "Bonded to a chromogenic, fluorogenic,
FT chemiluminescent, radioactive, antigenic, or haptenic
FT indicator group."
XX
PN EP187721-A.
XX
PD 16-JUL-1986.
XX
PF 10-JAN-1986; 86EP-00300147.
XX
PR 11-JAN-1985; 85US-00690731.
XX
PA (DUPO) DU PONT DE NEMOURS & CO E I.
XX
PI Kettner CA, Korant BD;
XX
DR WPI; 1986-184617/29.
XX
PT Peptide substrates for virus-specified protease(s) - with C-terminal
PT indicator gp. linked by amide or ester linkage.
XX
PS Example; p22; 41pp; English.
XX
CC The cpds. of the invention are useful in diagnosis of infectious diseases
CC caused by viruses which encode a specific protease e.g. picornaviruses.
CC (Updated on 03-OCT-2002 to add missing OS field.) (Updated on 25-MAR-2003
CC to correct PA field.)
XX
SQ Sequence 4 AA;

Query Match 76.2%; Score 16; DB 1; Length 4;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGL 3
|||
Db 1 FGL 3

RESULT 15
AAP71312
ID AAP71312 standard; protein; 4 AA.
XX
AC AAP71312;
XX
DT 25-MAR-2003 (revised)
DT 15-MAY-1991 (first entry)
XX
DE Peptide component of cpd. for treating picornavirus infections.
XX
KW Picornaviridae; poliovirus; rhinovirus; antiviral agent.
XX
OS Synthetic.
XX
PN US4636492-A.
XX
PD 13-JAN-1987.
XX
PF 29-AUG-1984; 84US-00645426.
XX
PR 29-AUG-1984; 84US-00645426.
XX
PA (DUPO) DU PONT DE NEMOURS & CO E I.
XX
PI Kettner CA, Korant BD;
XX
DR WPI; 1987-036897/05.
XX
PT Treating picorna-virus infection with peptide halo:methyl ketone cpds. -
PT esp. for treating polio virus and rhino virus infections.
XX
PS Disclosure; Page 4; 10pp; English.

XX
CC This peptide is useful as part of a peptide/halo-methyl ketone cpd., for
CC treating picornavirus, egpolio- or rhinovirus infections. It inhibits the
CC processing of picornavirus capsid proteins by virus encoded proteases.
CC See AAP71301-11 and AAP71313. See also US4652552. (Updated on 25-MAR-2003
CC to correct PA field.)
XX
SQ Sequence 4 AA;

Query Match 76.2%; Score 16; DB 1; Length 4;
Best Local Similarity 100.0%; Pred. No. 1.8e+06;
Matches 3; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 FGL 3
              |||
Db          1 FGL 3
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Job time : 167 secs

GenCore version 5.1.6

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	21	100.0	4	9	US-09-265-690C-2	Sequence 2, Appli
2	21	100.0	4	14	US-10-230-133-3	Sequence 3, Appli
3	21	100.0	4	14	US-10-053-669-2	Sequence 2, Appli
4	21	100.0	4	16	US-10-695-536-3	Sequence 3, Appli
5	21	100.0	4	16	US-10-805-881-2	Sequence 2, Appli
6	21	100.0	4	17	US-10-497-628-2	Sequence 2, Appli
7	16	76.2	4	9	US-09-879-442A-9	Sequence 9, Appli
8	16	76.2	4	17	US-10-821-240A-270	Sequence 270, App
9	15	71.4	3	14	US-10-230-133-2	Sequence 2, Appli
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11	14	66.7	4	9	US-09-879-442A-8	Sequence 8, Appli
12	14	66.7	4	15	US-10-137-867-328	Sequence 328, App
13	13	61.9	4	9	US-09-879-442A-98	Sequence 98, Appl
14	13	61.9	4	9	US-09-879-442A-99	Sequence 99, Appl
15	13	61.9	4	9	US-09-943-123-24	Sequence 24, Appl
16	13	61.9	4	14	US-10-087-905-30	Sequence 30, Appl
17	13	61.9	4	14	US-10-087-942-30	Sequence 30, Appl
18	13	61.9	4	14	US-10-087-402-10	Sequence 10, Appl
19	13	61.9	4	14	US-10-083-894-31	Sequence 31, Appl
20	13	61.9	4	14	US-10-196-394-98	Sequence 98, Appl
21	13	61.9	4	14	US-10-202-824-11	Sequence 11, Appl
22	13	61.9	4	15	US-10-359-363A-104	Sequence 104, App
23	13	61.9	4	17	US-10-712-359A-24	Sequence 24, Appl
24	12	57.1	3	14	US-10-121-857-6	Sequence 6, Appli
25	12	57.1	3	14	US-10-255-679-3	Sequence 3, Appli
26	12	57.1	3	14	US-10-208-018-6	Sequence 6, Appli
27	12	57.1	3	14	US-10-104-307-3	Sequence 3, Appli
28	12	57.1	4	8	US-08-484-409-14	Sequence 14, Appl
29	12	57.1	4	8	US-08-484-409-25	Sequence 25, Appl
30	12	57.1	4	9	US-09-804-733A-24	Sequence 24, Appl
31	12	57.1	4	9	US-09-803-126-20	Sequence 20, Appl
32	12	57.1	4	10	US-09-726-470A-29	Sequence 29, Appl
33	12	57.1	4	10	US-09-563-222-1	Sequence 1, Appli
34	12	57.1	4	10	US-09-811-945-15	Sequence 15, Appl
35	12	57.1	4	13	US-10-007-761-62	Sequence 62, Appl
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37	12	57.1	4	13	US-10-044-034-25	Sequence 25, Appl
38	12	57.1	4	13	US-10-076-421-3	Sequence 3, Appli
39	12	57.1	4	14	US-10-087-905-14	Sequence 14, Appl
40	12	57.1	4	14	US-10-087-905-17	Sequence 17, Appl
41	12	57.1	4	14	US-10-255-679-2	Sequence 2, Appli
42	12	57.1	4	14	US-10-255-679-5	Sequence 5, Appli
43	12	57.1	4	14	US-10-255-679-11	Sequence 11, Appl
44	12	57.1	4	14	US-10-255-679-12	Sequence 12, Appl
45	12	57.1	4	14	US-10-255-679-13	Sequence 13, Appl

ALIGNMENTS

RESULT 1
US-09-265-690C-2
; Sequence 2, Application US/09265690C
; Publication No. US20010051345A1
; GENERAL INFORMATION:
; APPLICANT: Wells, Ibert
; TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound M
; TITLE OF INVENTION: for Disease Diagnosis
; FILE REFERENCE: 1427001
; CURRENT APPLICATION NUMBER: US/09/265,690C
; CURRENT FILING DATE: 1999-03-10
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
; LENGTH: 4
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (4)..(4)
; OTHER INFORMATION: AMIDATION
US-09-265-690C-2

Query Match 100.0%; Score 21; DB 9; Length 4;
Best Local Similarity 100.0%; Pred. No. 1.3e+06;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGLM 4
||||
Db 1 FGLM 4

RESULT 2
US-10-230-133-3
; Sequence 3, Application US/10230133
; Publication No. US20030040625A1

; GENERAL INFORMATION:
; APPLICANT: Wells, Ibert
; TITLE OF INVENTION: Antagonists of the magnesium binding defect as therapy agents and
; TITLE OF INVENTION: methods for treatment of abnormal physiological states
; FILE REFERENCE: 2892-106
; CURRENT APPLICATION NUMBER: US/10/230,133
; CURRENT FILING DATE: 2002-08-29
; PRIOR APPLICATION NUMBER: 09/635,266
; PRIOR FILING DATE: 2000-08-09
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
; LENGTH: 4
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (4)..(4)
; OTHER INFORMATION: AMIDATION
US-10-230-133-3

Query Match 100.0%; Score 21; DB 14; Length 4;
Best Local Similarity 100.0%; Pred. No. 1.3e+06;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGLM 4
||||
Db 1 FGLM 4

RESULT 3
US-10-053-669-2
; Sequence 2, Application US/10053669
; Publication No. US20030077658A1
; GENERAL INFORMATION:
; APPLICANT: Wells, Ibert
; TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound Ma
; TITLE OF INVENTION: for Disease Diagnosis
; FILE REFERENCE: N1427-005
; CURRENT APPLICATION NUMBER: US/10/053,669
; CURRENT FILING DATE: 2002-01-24
; PRIOR APPLICATION NUMBER: 09/265,690
; PRIOR FILING DATE: 1999-03-10
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
; LENGTH: 4
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (4)..(4)
; OTHER INFORMATION: AMIDATION
US-10-053-669-2

Query Match 100.0%; Score 21; DB 14; Length 4;
Best Local Similarity 100.0%; Pred. No. 1.3e+06;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGLM 4
||||
Db 1 FGLM 4

RESULT 4
US-10-695-536-3
; Sequence 3, Application US/10695536
; Publication No. US20040110692A1
; GENERAL INFORMATION:
; APPLICANT: Wells, Ibert Clifton
; TITLE OF INVENTION: Antagonists of the Magnesium Binding Defect as Therapeutic Agents
; TITLE OF INVENTION: and Methods for Treatment of Abnormal Physiological States
; FILE REFERENCE: 800812-0008
; CURRENT APPLICATION NUMBER: US/10/695,536
; CURRENT FILING DATE: 2003-10-28
; PRIOR APPLICATION NUMBER: US 10/230,133
; PRIOR FILING DATE: 2002-08-29
; PRIOR APPLICATION NUMBER: US 09/635,266
; PRIOR FILING DATE: 2000-08-09
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 3
; LENGTH: 4
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (4)..(4)
; OTHER INFORMATION: AMIDATION
US-10-695-536-3

Query Match 100.0%; Score 21; DB 16; Length 4;
Best Local Similarity 100.0%; Pred. No. 1.3e+06;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGLM 4
||||
Db 1 FGLM 4

RESULT 5
US-10-805-881-2
; Sequence 2, Application US/10805881
; Publication No. US20040171093A1
; GENERAL INFORMATION:
; APPLICANT: Wells, Ibert C.
; TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound
; TITLE OF INVENTION: Magnesium for Disease Diagnosis
; FILE REFERENCE: 800812-0005
; CURRENT APPLICATION NUMBER: US/10/805,881
; CURRENT FILING DATE: 2004-03-22
; PRIOR APPLICATION NUMBER: US 10/053,669
; PRIOR FILING DATE: 2002-01-24
; PRIOR APPLICATION NUMBER: US 10/695,536
; PRIOR FILING DATE: 2003-10-28
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2
; LENGTH: 4
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (4)..(4)
; OTHER INFORMATION: AMIDATION
US-10-805-881-2

Query Match 100.0%; Score 21; DB 16; Length 4;
Best Local Similarity 100.0%; Pred. No. 1.3e+06;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGLM 4
||||
Db 1 FGLM 4

RESULT 6
US-10-497-628-2
; Sequence 2, Application US/10497628
; Publication No. US20050009752A1
; GENERAL INFORMATION:
; APPLICANT: Teruo Nishida
; APPLICANT: Makoto Inui
; APPLICANT: Masatsugu Nakamura
; TITLE OF INVENTION: NOVEL PEPTIDE AND PHARMACEUTICAL USE OF THE SAME
; FILE REFERENCE: 04355/HG

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;  CURRENT APPLICATION NUMBER: US/10/497,628
;  CURRENT FILING DATE:  2004-06-03
;  PRIOR APPLICATION NUMBER: JP 2001-368103
;  PRIOR FILING DATE: 2001-12-01
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Human
US-10-497-628-2

  Query Match             100.0%;  Score 21;  DB 17;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+06;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGLM 4
              ||||
Db          1 FGLM 4


RESULT 7
US-09-879-442A-9
; Sequence 9, Application US/09879442A
; Patent No. US20020142955A1
; GENERAL INFORMATION:
;  APPLICANT: CORIXA CORPORATION
;  APPLICANT:  Dubois, Vincent
;  APPLICANT:  Fernandez, Anne Marie
;  APPLICANT:  Gangwar, Sanjeev
;  APPLICANT:  Lewis, Evan
;  APPLICANT:  Lobl, Thomas J.
;  APPLICANT:  Nieder, Matthew H.
;  APPLICANT:  Pickford, Lesley B.
;  APPLICANT:  Trouet, Andre
;  APPLICANT:  Yarranton, Geoffrey T.
;  TITLE OF INVENTION: ENZYME CLEAVABLE PRODRUG COMPOUNDS
;  FILE REFERENCE: COUL-015/02US
;  CURRENT APPLICATION NUMBER: US/09/879,442A
;  CURRENT FILING DATE:  2001-06-11
;  PRIOR APPLICATION NUMBER: 60/290,448
;  PRIOR FILING DATE: 2001-05-11
;  PRIOR APPLICATION NUMBER: 60/211,887
;  PRIOR FILING DATE: 2000-06-14
;  PRIOR APPLICATION NUMBER: PCT/US99/30393
;  PRIOR FILING DATE: 1999-12-10
;  PRIOR APPLICATION NUMBER: 60/119,312
;  PRIOR FILING DATE: 1999-02-08
;  PRIOR APPLICATION NUMBER: 60/111,793
;  PRIOR FILING DATE: 1998-12-11
;  NUMBER OF SEQ ID NOS: 103
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 9
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
;   NAME/KEY: SITE
;   LOCATION: (1)
;   OTHER INFORMATION: Beta-Alanine
US-09-879-442A-9

  Query Match             76.2%;  Score 16;  DB 9;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+06;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGL 3
              |||
Db          2 FGL 4


RESULT 8
US-10-821-240A-270
; Sequence 270, Application US/10821240A
; Publication No. US20050037430A1
; GENERAL INFORMATION:
;  APPLICANT: Khan, Nisar A.
;  APPLICANT:  Benner, Robert
;  TITLE OF INVENTION: Gene regulator
;  FILE REFERENCE: 2183-5223US
;  CURRENT APPLICATION NUMBER: US/10/821,240A
;  CURRENT FILING DATE:  2004-04-08
;  PRIOR APPLICATION NUMBER: 10/028,075
;  PRIOR FILING DATE: 2001-12-21
;  PRIOR APPLICATION NUMBER: EP 01203748.7
;  PRIOR FILING DATE: 2001-10-04
;  NUMBER OF SEQ ID NOS: 312
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 270
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: derivative peptide based on m
;   OTHER INFORMATION: metalloproteinase-2
US-10-821-240A-270

  Query Match             76.2%;  Score 16;  DB 17;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+06;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGL 3
              |||
Db          2 FGL 4


RESULT 9
US-10-230-133-2
; Sequence 2, Application US/10230133
; Publication No. US20030040625A1
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Antagonists of the magnesium binding defect as therapy agents and
;  TITLE OF INVENTION:  methods for treatment of abnormal physiological states
;  FILE REFERENCE: 2892-106
;  CURRENT APPLICATION NUMBER: US/10/230,133
;  CURRENT FILING DATE:  2002-08-29
;  PRIOR APPLICATION NUMBER: 09/635,266
;  PRIOR FILING DATE: 2000-08-09
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
;   LENGTH: 3
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (3)..(3)
;   OTHER INFORMATION: AMIDATION
US-10-230-133-2

  Query Match             71.4%;  Score 15;  DB 14;  Length 3;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+06;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 GLM 4
              |||
Db          1 GLM 3


RESULT 10
US-10-695-536-2
; Sequence 2, Application US/10695536
; Publication No. US20040110692A1
; GENERAL INFORMATION:
```

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;  APPLICANT: Wells, Ibert  Clifton
;  TITLE OF INVENTION: Antagonists of the Magnesium Binding Defect as Therapeutic Agents
;  TITLE OF INVENTION:  and Methods for Treatment of Abnormal Physiological States
;  FILE REFERENCE: 800812-0008
;  CURRENT APPLICATION NUMBER: US/10/695,536
;  CURRENT FILING DATE:  2003-10-28
;  PRIOR APPLICATION NUMBER: US 10/230,133
;  PRIOR FILING DATE: 2002-08-29
;  PRIOR APPLICATION NUMBER: US 09/635,266
;  PRIOR FILING DATE: 2000-08-09
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2
;   LENGTH: 3
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (3)..(3)
;   OTHER INFORMATION: AMIDATION
US-10-695-536-2

  Query Match             71.4%;  Score 15;  DB 16;  Length 3;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+06;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 GLM 4
              |||
Db          1 GLM 3


RESULT 11
US-09-879-442A-8
; Sequence 8, Application US/09879442A
; Patent No. US20020142955A1
; GENERAL INFORMATION:
;  APPLICANT: CORIXA CORPORATION
;  APPLICANT:  Dubois, Vincent
;  APPLICANT:  Fernandez, Anne Marie
;  APPLICANT:  Gangwar, Sanjeev
;  APPLICANT:  Lewis, Evan
;  APPLICANT:  Lobl, Thomas J.
;  APPLICANT:  Nieder, Matthew H.
;  APPLICANT:  Pickford, Lesley B.
;  APPLICANT:  Trouet, Andre
;  APPLICANT:  Yarranton, Geoffrey T.
;  TITLE OF INVENTION: ENZYME CLEAVABLE PRODRUG COMPOUNDS
;  FILE REFERENCE: COUL-015/02US
;  CURRENT APPLICATION NUMBER: US/09/879,442A
;  CURRENT FILING DATE:  2001-06-11
;  PRIOR APPLICATION NUMBER: 60/290,448
;  PRIOR FILING DATE: 2001-05-11
;  PRIOR APPLICATION NUMBER: 60/211,887
;  PRIOR FILING DATE: 2000-06-14
;  PRIOR APPLICATION NUMBER: PCT/US99/30393
;  PRIOR FILING DATE: 1999-12-10
;  PRIOR APPLICATION NUMBER: 60/119,312
;  PRIOR FILING DATE: 1999-02-08
;  PRIOR APPLICATION NUMBER: 60/111,793
;  PRIOR FILING DATE: 1998-12-11
;  NUMBER OF SEQ ID NOS: 103
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 8
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Synthetic
;   NAME/KEY: SITE
;   LOCATION: (1)
;   OTHER INFORMATION: Beta-Alanine
US-09-879-442A-8

  Query Match             66.7%;  Score 14;  DB 9;  Length 4;
  Best Local Similarity   66.7%;  Pred. No. 1.3e+06;
  Matches    2;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGL 3
              ||:
Db          2 FGI 4


RESULT 12
US-10-137-867-328
; Sequence 328, Application US/10137867
; Publication No. US20030207349A1
; GENERAL INFORMATION:
;  APPLICANT: Baker,Kevin P.
;  APPLICANT:  Beresini,Maureen
;  APPLICANT:  DeForge,Laura
;  APPLICANT:  Desnoyers,Luc
;  APPLICANT:  Filvaroff,Ellen
;  APPLICANT:  Gao,Wei-Qiang
;  APPLICANT:  Gerritsen,Mary E.
;  APPLICANT:  Goddard,Audrey
;  APPLICANT:  Godowski,Paul J.
;  APPLICANT:  Gurney,Austin L.
;  APPLICANT:  Sherwood,Steven
;  APPLICANT:  Smith,Victoria
;  APPLICANT:  Stewart,Timothy A.
;  APPLICANT:  Tumas,Daniel
;  APPLICANT:  Watanabe,Colin K
;  APPLICANT:  Wood,William
;  APPLICANT:  Zhang, Zemin
;  TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
;  TITLE OF INVENTION:  ACIDS ENCODING THE SAME
;  FILE REFERENCE: P3330R1C146
;  CURRENT APPLICATION NUMBER: US/10/137,867
;  CURRENT FILING DATE:  2002-05-03
;  Prior Application removed - See Palm or File Wrapper
;  NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 328
;   LENGTH: 379
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-10-137-867-328

  Query Match             66.7%;  Score 14;  DB 15;  Length 4;
  Best Local Similarity   66.7%;  Pred. No. 1.3e+06;
  Matches    2;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGL 3
              ||:
Db          2 FGM 4


RESULT 13
US-09-879-442A-98
; Sequence 98, Application US/09879442A
; Patent No. US20020142955A1
; GENERAL INFORMATION:
;  APPLICANT: CORIXA CORPORATION
;  APPLICANT:  Dubois, Vincent
;  APPLICANT:  Fernandez, Anne Marie
;  APPLICANT:  Gangwar, Sanjeev
;  APPLICANT:  Lewis, Evan
;  APPLICANT:  Lobl, Thomas J.
;  APPLICANT:  Nieder, Matthew H.
;  APPLICANT:  Pickford, Lesley B.
;  APPLICANT:  Trouet, Andre
;  APPLICANT:  Yarranton, Geoffrey T.
;  TITLE OF INVENTION: ENZYME CLEAVABLE PRODRUG COMPOUNDS
;  FILE REFERENCE: COUL-015/02US
;  CURRENT APPLICATION NUMBER: US/09/879,442A
;  CURRENT FILING DATE:  2001-06-11
;  PRIOR APPLICATION NUMBER: 60/290,448
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; PRIOR FILING DATE: 2001-05-11
; PRIOR APPLICATION NUMBER: 60/211,887
; PRIOR FILING DATE: 2000-06-14
; PRIOR APPLICATION NUMBER: PCT/US99/30393
; PRIOR FILING DATE: 1999-12-10
; PRIOR APPLICATION NUMBER: 60/119,312
; PRIOR FILING DATE: 1999-02-08
; PRIOR APPLICATION NUMBER: 60/111,793
; PRIOR FILING DATE: 1998-12-11
; NUMBER OF SEQ ID NOS: 103
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 98
; LENGTH: 4
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; NAME/KEY: SITE
; LOCATION: (1)
; OTHER INFORMATION: 2-Thienylalanine
US-09-879-442A-98

Query Match 61.9%; Score 13; DB 9; Length 4;
Best Local Similarity 66.7%; Pred. No. 1.3e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGL 3
:||
Db 2 YGL 4

RESULT 14
US-09-879-442A-99
; Sequence 99, Application US/09879442A
; Patent No. US20020142955A1
; GENERAL INFORMATION:
; APPLICANT: CORIXA CORPORATION
; APPLICANT: Dubois, Vincent
; APPLICANT: Fernandez, Anne Marie
; APPLICANT: Gangwar, Sanjeev
; APPLICANT: Lewis, Evan
; APPLICANT: Lobl, Thomas J.
; APPLICANT: Nieder, Matthew H.
; APPLICANT: Pickford, Lesley B.
; APPLICANT: Trouet, Andre
; APPLICANT: Yarranton, Geoffrey T.
; TITLE OF INVENTION: ENZYME CLEAVABLE PRODRUG COMPOUNDS
; FILE REFERENCE: COUL-015/02US
; CURRENT APPLICATION NUMBER: US/09/879,442A
; CURRENT FILING DATE: 2001-06-11
; PRIOR APPLICATION NUMBER: 60/290,448
; PRIOR FILING DATE: 2001-05-11
; PRIOR APPLICATION NUMBER: 60/211,887
; PRIOR FILING DATE: 2000-06-14
; PRIOR APPLICATION NUMBER: PCT/US99/30393
; PRIOR FILING DATE: 1999-12-10
; PRIOR APPLICATION NUMBER: 60/119,312
; PRIOR FILING DATE: 1999-02-08
; PRIOR APPLICATION NUMBER: 60/111,793
; PRIOR FILING DATE: 1998-12-11
; NUMBER OF SEQ ID NOS: 103
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 99
; LENGTH: 4
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; NAME/KEY: SITE
; LOCATION: (1)
; OTHER INFORMATION: Beta-Alanine
US-09-879-442A-99

Query Match 61.9%; Score 13; DB 9; Length 4;
Best Local Similarity 66.7%; Pred. No. 1.3e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGL 3
:||
Db 2 YGL 4

RESULT 15
US-09-943-123-24
; Sequence 24, Application US/09943123
; Publication No. US20020182701A1
; GENERAL INFORMATION:
; APPLICANT: CHANG, Y-H
; APPLICANT: VETRO, J.A.
; APPLICANT: MICKA, W.S.
; TITLE OF INVENTION: Dominant Negative Variants of Methionine Aminopeptidase
; TITLE OF INVENTION: 2 ("MetAP2") and Clinical Uses Therefor
; FILE REFERENCE: 16153-8007
; CURRENT APPLICATION NUMBER: US/09/943,123
; CURRENT FILING DATE: 2001-08-30
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 24
; LENGTH: 4
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: peptide
US-09-943-123-24

Query Match 61.9%; Score 13; DB 9; Length 4;
Best Local Similarity 66.7%; Pred. No. 1.3e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 2 GLM 4
|:|
Db 2 GMM 4

Search completed: March 23, 2005, 15:25:39
Job time : 138 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 23, 2005, 15:04:03 ; Search time 41 Seconds
(without alignments)
7.283 Million cell updates/sec

Title: SEQ3
Perfect score: 21
Sequence: 1 fglm 4

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 12390

Minimum DB seq length: 0
Maximum DB seq length: 4

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	21	100.0	4	1	US-08-441-591-63	Sequence 63, Appl
2	21	100.0	4	1	US-08-303-362A-63	Sequence 63, Appl
3	21	100.0	4	3	US-09-265-690C-2	Sequence 2, Appli
4	21	100.0	4	4	US-09-635-266-3	Sequence 3, Appli
5	21	100.0	4	4	US-10-230-133-3	Sequence 3, Appli
6	21	100.0	4	5	PCT-US95-05600-80	Sequence 80, Appl
7	16	76.2	4	2	US-08-747-137-124	Sequence 124, App
8	16	76.2	4	3	US-08-722-126A-20	Sequence 20, Appl
9	15	71.4	3	4	US-09-635-266-2	Sequence 2, Appli
10	15	71.4	3	4	US-10-230-133-2	Sequence 2, Appli
11	15	71.4	4	2	US-08-070-301-8	Sequence 8, Appli
12	15	71.4	4	2	US-08-433-401-4	Sequence 4, Appli
13	14	66.7	4	3	US-08-793-701-25	Sequence 25, Appl
14	14	66.7	4	4	US-09-579-264-25	Sequence 25, Appl
15	13	61.9	4	2	US-08-429-964-37	Sequence 37, Appl
16	13	61.9	4	3	US-08-812-586-60	Sequence 60, Appl
17	13	61.9	4	4	US-08-669-656A-11	Sequence 11, Appl
18	13	61.9	4	4	US-09-535-832A-56	Sequence 56, Appl
19	13	61.9	4	4	US-09-665-362A-31	Sequence 31, Appl
20	13	61.9	4	4	US-09-665-637-31	Sequence 31, Appl
21	13	61.9	4	4	US-10-087-402-10	Sequence 10, Appl
22	13	61.9	4	5	PCT-US93-08062-37	Sequence 37, Appl
23	12	57.1	3	1	US-08-343-943-4	Sequence 4, Appli
24	12	57.1	3	2	US-09-060-455-2	Sequence 2, Appli
25	12	57.1	3	4	US-09-150-621-3	Sequence 3, Appli
26	12	57.1	3	4	US-10-121-857-6	Sequence 6, Appli
27	12	57.1	4	1	US-07-657-769B-58	Sequence 58, Appl
28	12	57.1	4	1	US-07-822-924-3	Sequence 3, Appli
29	12	57.1	4	1	US-07-822-924-5	Sequence 5, Appli
30	12	57.1	4	1	US-07-822-924-7	Sequence 7, Appli
31	12	57.1	4	1	US-08-285-777-1	Sequence 1, Appli
32	12	57.1	4	1	US-08-147-270A-1	Sequence 1, Appli
33	12	57.1	4	1	US-07-969-307A-1	Sequence 1, Appli
34	12	57.1	4	1	US-07-969-307A-2	Sequence 2, Appli
35	12	57.1	4	1	US-07-969-307A-3	Sequence 3, Appli
36	12	57.1	4	1	US-08-127-904-11	Sequence 11, Appl
37	12	57.1	4	1	US-08-431-539-4	Sequence 4, Appli
38	12	57.1	4	1	US-08-331-383-10	Sequence 10, Appl
39	12	57.1	4	1	US-08-429-732-20	Sequence 20, Appl
40	12	57.1	4	1	US-07-789-184-108	Sequence 108, App
41	12	57.1	4	1	US-08-549-008-10	Sequence 10, Appl
42	12	57.1	4	1	US-08-624-123-11	Sequence 11, Appl
43	12	57.1	4	1	US-08-077-252B-20	Sequence 20, Appl
44	12	57.1	4	1	US-08-475-263-108	Sequence 108, App
45	12	57.1	4	1	US-08-485-886-108	Sequence 108, App

ALIGNMENTS

```
RESULT 1
US-08-441-591-63
; Sequence 63, Application US/08441591
; Patent No. 5637682
;  GENERAL INFORMATION:
;    APPLICANT:  NIEUWLANDT, D., GOLD, L.  AND WECKER, M.
;    TITLE OF INVENTION:  HIGH-AFFINITY
;    TITLE OF INVENTION:  OLIGONUCLEOTIDE LIGANDS
;    TITLE OF INVENTION:  TO THE TACHYKININ
;    TITLE OF INVENTION:  SUBSTANCE P
;    NUMBER OF SEQUENCES:  66
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Swanson & Bratschun, L.L.C.
;      STREET:  8400 E. Prentice Avenue, Suite 200
;      CITY:  Englewood
;      STATE:  Colorado
;      COUNTRY:  USA
;      ZIP:  80111
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette, 3.50 inch, 1.44 MG storage
;      COMPUTER:  IBM compatible
;      OPERATING SYSTEM:  MS-DOS
;      SOFTWARE:  WordPerfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/441,591
;      FILING DATE:
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/303,362
;      FILING DATE:  9-SEPTEMBER-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/714,131
;      FILING DATE:  10-JUNE-1991
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/931,473
;      FILING DATE:  17-AUGUST-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/117,991
;      FILING DATE:  8-SEPTEMBER 1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/536,428
;      FILING DATE:  11-JUNE-1990
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/964,624
;      FILING DATE:  21-OCTOBER-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Barry J. Swanson
;      REGISTRATION NUMBER:  33,215
;      REFERENCE/DOCKET NUMBER:  NEX21/C
;    TELECOMMUNICATION INFORMATION:
```

; TELEPHONE: (303) 793-3333
; TELEFAX: (303) 793-3433
; INFORMATION FOR SEQ ID NO: 63:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 4
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-441-591-63

Query Match 100.0%; Score 21; DB 1; Length 4;
Best Local Similarity 100.0%; Pred. No. 4.1e+05;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGLM 4
||||
Db 1 FGLM 4

RESULT 2
US-08-303-362A-63
; Sequence 63, Application US/08303362A
; Patent No. 5648214
; GENERAL INFORMATION:
; APPLICANT: NIEUWLANDT, D., GOLD, L. AND WECKER, M.
; TITLE OF INVENTION: HIGH-AFFINITY
; TITLE OF INVENTION: OLIGONUCLEOTIDE LIGANDS
; TITLE OF INVENTION: TO THE TACHYKININ
; TITLE OF INVENTION: SUBSTANCE P
; NUMBER OF SEQUENCES: 66
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Swanson & Bratschun, L.L.C.
; STREET: 8400 E. Prentice Avenue, Suite 200
; CITY: Englewood
; STATE: Colorado
; COUNTRY: USA
; ZIP: 80111
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 3.50 inch, 1.44 MG storage
; COMPUTER: IBM compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: WordPerfect 5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/303,362A
; FILING DATE: 9-SEPTEMBER-1994
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/714,131
; FILING DATE: 10-JUNE-1991
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/931,473
; FILING DATE: 17-AUGUST-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/117,991
; FILING DATE: 8-SEPTEMBER 1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/536,428
; FILING DATE: 11-JUNE-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/964,624
; FILING DATE: 21-OCTOBER-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Barry J. Swanson
; REGISTRATION NUMBER: 33,215
; REFERENCE/DOCKET NUMBER: NEX21
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (303) 793-3333
; TELEFAX: (303) 793-3433
; INFORMATION FOR SEQ ID NO: 63:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 4
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-303-362A-63

Query Match 100.0%; Score 21; DB 1; Length 4;
Best Local Similarity 100.0%; Pred. No. 4.1e+05;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGLM 4
||||
Db 1 FGLM 4

RESULT 3
US-09-265-690C-2
; Sequence 2, Application US/09265690C
; Patent No. 6372440
; GENERAL INFORMATION:
; APPLICANT: Wells, Ibert
; TITLE OF INVENTION: Method for Detecting Deficient Cellular Membrane Tightly Bound Ma
; TITLE OF INVENTION: for Disease Diagnosis
; FILE REFERENCE: 1427001
; CURRENT APPLICATION NUMBER: US/09/265,690C
; CURRENT FILING DATE: 1999-03-10
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
; LENGTH: 4
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (4)..(4)
; OTHER INFORMATION: AMIDATION
US-09-265-690C-2

Query Match 100.0%; Score 21; DB 3; Length 4;
Best Local Similarity 100.0%; Pred. No. 4.1e+05;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGLM 4
||||
Db 1 FGLM 4

RESULT 4
US-09-635-266-3
; Sequence 3, Application US/09635266
; Patent No. 6455734
; GENERAL INFORMATION:
; APPLICANT: Wells, Ibert
; TITLE OF INVENTION: Antagonists of the magnesium binding defect as therapy agents and
; TITLE OF INVENTION: methods for treatment of abnormal physiological states
; FILE REFERENCE: N1427-002
; CURRENT APPLICATION NUMBER: US/09/635,266
; CURRENT FILING DATE: 2000-08-09
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
; LENGTH: 4
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (4)..(4)
; OTHER INFORMATION: AMIDATION
US-09-635-266-3

Query Match 100.0%; Score 21; DB 4; Length 4;
Best Local Similarity 100.0%; Pred. No. 4.1e+05;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FGLM 4
||||

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Db          1 FGLM 4


RESULT 5
US-10-230-133-3
; Sequence 3, Application US/10230133
; Patent No. 6664420
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Antagonists of the magnesium binding defect as therapy agents and
;  TITLE OF INVENTION:  methods for treatment of abnormal physiological states
;  FILE REFERENCE: 2892-106
;  CURRENT APPLICATION NUMBER: US/10/230,133
;  CURRENT FILING DATE:  2002-08-29
;  PRIOR APPLICATION NUMBER: 09/635,266
;  PRIOR FILING DATE: 2000-08-09
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
;   LENGTH: 4
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (4)..(4)
;   OTHER INFORMATION: AMIDATION
US-10-230-133-3

  Query Match             100.0%;  Score 21;  DB 4;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGLM 4
              ||||
Db          1 FGLM 4


RESULT 6
PCT-US95-05600-80
; Sequence 80, Application PC/TUS9505600
;  GENERAL INFORMATION:
;    APPLICANT:  GOLD, LARRY
;    APPLICANT:  NIEUWLANDT, DAN
;    APPLICANT:  WECKER, MATTHEW
;    APPLICANT:  SCHNEIDER, DANIEL J.
;    APPLICANT:  FEIGON, JULI
;    APPLICANT:  ALLEN, PATRICK
;    APPLICANT:  SULLENGER, BRUCE A.
;    APPLICANT:  DOUDNA, JENNIFER, A.
;    TITLE OF INVENTION:  HIGH-AFFINITY LIGANDS OF
;    TITLE OF INVENTION:  INSULIIN RECEPTOR ANTIBODIES, TACHYKININ SUBSTANCE
;    TITLE OF INVENTION:  P, HIV INTEGRASE AND HIV-1 REVERSE TRANSCRIPTASE
;    NUMBER OF SEQUENCES:  239
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Swanson & Bratschun, L.L.C.
;      STREET:  8400 E. Prentice Avenue, Suite 200
;      CITY:  Englewood
;      STATE:  Colorado
;      COUNTRY:  USA
;      ZIP:  80111
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette, 3.5 inch, 1.44 MG
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM compatible
;      OPERATING SYSTEM:  MS-DOS
;      SOFTWARE:  WordPerfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US95/05600
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/238,863
;      FILING DATE:  06-MAY-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/248,632
;      FILING DATE:  24-MAY-1994
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/303,362
;      FILING DATE:  09-SEPTEMBER-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/361,795
;      FILING DATE:  21-DECEMBER-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/117,991
;      FILING DATE:  08-SEPTEMBER-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/931,473
;      FILING DATE:  17-AUGUST-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/964,624
;      FILING DATE:  21-OCTOBER-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/536,428
;      FILING DATE:  11-JUNE-1990
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/714,131
;      FILING DATE:  10-JUNE-1991
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/536,428
;      FILING DATE:  11-JUNE-1990
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Barry J. Swanson
;      REGISTRATION NUMBER:  33,215
;      REFERENCE/DOCKET NUMBER:  NEX17/PCT
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (303) 793-3333
;      TELEFAX:  (303) 793-3433
;  INFORMATION FOR SEQ ID NO:  80:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  4 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
PCT-US95-05600-80

  Query Match             100.0%;  Score 21;  DB 5;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    4;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGLM 4
              ||||
Db          1 FGLM 4


RESULT 7
US-08-747-137-124
; Sequence 124, Application US/08747137
; Patent No. 5945033
;  GENERAL INFORMATION:
;    APPLICANT:  YEN, Richard C.K.
;    TITLE OF INVENTION:  NON-CROSSLINKED PROTEIN PARTICLES FOR
;    TITLE OF INVENTION:  THERAPEUTIC AND DIAGNOSTIC USE
;    NUMBER OF SEQUENCES:  184
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Townsend and Townsend and Crew LLP
;      STREET:  Two Embarcadero Center, 8th Floor
;      CITY:  San Francisco
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94111
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
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;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/747,137
;      FILING DATE:  12-NOV-1996
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/212,546
;      FILING DATE:  14-MAR-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/069,831
;      FILING DATE:  01-JUN-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/959,560
;      FILING DATE:  13-OCT-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/641,720
;      FILING DATE:  15-JAN-1991
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Apple, Randolph T.
;      REGISTRATION NUMBER:  36,429
;      REFERENCE/DOCKET NUMBER:  016197-000840US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-576-0200
;  INFORMATION FOR SEQ ID NO:  124:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  4 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  not relevant
;      TOPOLOGY:  not relevant
;    FEATURE:
;      NAME/KEY:  Modified-site
;      LOCATION:  4
;      OTHER INFORMATION:  /product= "Met-Amide"
US-08-747-137-124

  Query Match             76.2%;  Score 16;  DB 2;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGL 3
              |||
Db          1 FGL 3


RESULT 8
US-08-722-126A-20
; Sequence 20, Application US/08722126A
; Patent No. 6034227
;  GENERAL INFORMATION:
;    APPLICANT:  PECHT, Israel
;    APPLICANT:  GUTHMANN, Marcelo D.
;    APPLICANT:  TAL, Michael
;    TITLE OF INVENTION:  A DNA MOLECULE ENCODING A MAST CELL
;    TITLE OF INVENTION:  FUNCTION-ASSOCIATED ANTIGEN (MAFA)
;    NUMBER OF SEQUENCES:  20
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BROWDY AND NEIMARK, P.L.L.C.
;      STREET:  419 Seventh Street N.W., Ste. 300
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  UNITED STATES OF AMERICA
;      ZIP:  20004
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/722,126A
;      FILING DATE:  08-OCT-1996
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US95/04258
;      FILING DATE:  06-APR-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  IL 109257
;      FILING DATE:  08-APR-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  BROWDY, Roger L.
;      REGISTRATION NUMBER:  25,618
;      REFERENCE/DOCKET NUMBER:  PECHT=1A
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202) 628-5197
;      TELEFAX:  (202) 737-3528
;  INFORMATION FOR SEQ ID NO:  20:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  4 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-722-126A-20

  Query Match             76.2%;  Score 16;  DB 3;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGL 3
              |||
Db          2 FGL 4


RESULT 9
US-09-635-266-2
; Sequence 2, Application US/09635266
; Patent No. 6455734
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Antagonists of the magnesium binding defect as therapy agents and
;  TITLE OF INVENTION:  methods for treatment of abnormal physiological states
;  FILE REFERENCE: N1427-002
;  CURRENT APPLICATION NUMBER: US/09/635,266
;  CURRENT FILING DATE:  2000-08-09
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
;   LENGTH: 3
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (3)..(3)
;   OTHER INFORMATION: AMIDATION
US-09-635-266-2

  Query Match             71.4%;  Score 15;  DB 4;  Length 3;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 GLM 4
              |||
Db          1 GLM 3


RESULT 10
US-10-230-133-2
; Sequence 2, Application US/10230133
; Patent No. 6664420
; GENERAL INFORMATION:
;  APPLICANT: Wells, Ibert
;  TITLE OF INVENTION: Antagonists of the magnesium binding defect as therapy agents and
;  TITLE OF INVENTION:  methods for treatment of abnormal physiological states
;  FILE REFERENCE: 2892-106
;  CURRENT APPLICATION NUMBER: US/10/230,133
;  CURRENT FILING DATE:  2002-08-29
;  PRIOR APPLICATION NUMBER: 09/635,266
;  PRIOR FILING DATE: 2000-08-09
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;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
;   LENGTH: 3
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: MOD_RES
;   LOCATION: (3)..(3)
;   OTHER INFORMATION: AMIDATION
US-10-230-133-2

  Query Match          71.4%;  Score 15;  DB 4;  Length 3;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 GLM 4
              |||
Db          1 GLM 3


RESULT 11
US-08-070-301-8
; Sequence 8, Application US/08070301
; Patent No. 5871995
;  GENERAL INFORMATION:
;    APPLICANT:  IIDA, Toshio
;    APPLICANT:  KAMINUMA, Toshihiko
;    APPLICANT:  FUSE, Yuka
;    APPLICANT:  TAJIMA, Masahiro
;    APPLICANT:  YANAGI, Mitsuo
;    APPLICANT:  OKAMOTO, Hiroshi
;    APPLICANT:  KISHIMOTO, Jiro
;    APPLICANT:  IFUKU, Ohji
;    APPLICANT:  KATO, Ichiro
;    TITLE OF INVENTION:  ENZYME PARTICIPATING IN C-TERMINAL
;    TITLE OF INVENTION:  AMIDATION, AND METHOD OF PREPARING SAME AND USE THEREOF
;    NUMBER OF SEQUENCES:  21
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Wegner, Cantor, Mueller & Player, P.C.
;      STREET:  1233 20th Street, N.W.
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  U.S.A.
;      ZIP:  20036-8218
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/070,301
;      FILING DATE:  24-MAY-1991
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 1-209687
;      FILING DATE:  15-AUG-1989
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 1-181933
;      FILING DATE:  31-OCT-1989
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 2-76331
;      FILING DATE:  26-MAR-1990
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 2-106412
;      FILING DATE:  24-APR-1990
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 2-205475
;      FILING DATE:  02-AUG-1990
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Player, William E.
;      REGISTRATION NUMBER:  31,409
;      REFERENCE/DOCKET NUMBER:  P-450-22830
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202) 887-040
;      TELEFAX:  (202) 835-0605
;      TELEX:  440706
;  INFORMATION FOR SEQ ID NO:  8:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  4 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-070-301-8

  Query Match          71.4%;  Score 15;  DB 2;  Length 4;
  Best Local Similarity   100.0%;  Pred. No. 4.1e+05;
  Matches    3;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 GLM 4
              |||
Db          1 GLM 3


RESULT 12
US-08-433-401-4
; Sequence 4, Application US/08433401
; Patent No. 5872097
;  GENERAL INFORMATION:
;    APPLICANT:  Fh lenhag, Karin I.
;    APPLICANT:  Fryklund, Linda
;    APPLICANT:  Larsson, Bo C.
;    APPLICANT:  Nyberg, Fred J.
;    APPLICANT:  Westin-Sj dahl, Gertrud E.
;    APPLICANT:  Ludin, Ronny
;    TITLE OF INVENTION:  New Oligopeptides with Affinity to
;    TITLE OF INVENTION:  Opioid Receptors
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Pollock, Vande Sande & Priddy
;      STREET:  1990 M Street, N.W., Suite 800
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  US
;      ZIP:  20036-0088
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/433,401
;      FILING DATE:  18-MAY-1995
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT\SE93\00986
;      FILING DATE:  18-NOV-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  SE 9203496-6
;      FILING DATE:  20-NOV-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Amernick, Burton A.
;      REGISTRATION NUMBER:  24,852
;      REFERENCE/DOCKET NUMBER:  151/00118
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202) 331-7111
;      TELEFAX:  (202) 223-2596
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  4 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-433-401-4
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  Query Match             71.4%;  Score 15;  DB 2;  Length 4;
  Best Local Similarity   50.0%;  Pred. No. 4.1e+05;
  Matches    2;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGLM 4
              :||:
Db          1 YGLL 4


RESULT 13
US-08-793-701-25
; Sequence 25, Application US/08793701
; Patent No. 6248581
;  GENERAL INFORMATION:
;    APPLICANT:  GICQUEL, Brigitte
;    APPLICANT:  LIM, Eng Mong
;    APPLICANT:  PORTNOI, Denis
;    APPLICANT:  BERTHET, Francois-Xavier
;    APPLICANT:  TIMM, Juliano
;    TITLE OF INVENTION:  MYCOBACTERIA FUNCTIONAL SCREENING AND/OR
;    TITLE OF INVENTION:  EXPRESSION VECTORS
;    NUMBER OF SEQUENCES:  63
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  c/o FINNEGAN, HENDERSON, FARRABOW, GARRETT &
;      ADDRESSEE:  DUNNER, L.L.P.
;      STREET:  1300 I Street, N.W.
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20005
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/793,701
;      FILING DATE:  09-JUN-1997
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/FR9501133
;      FILING DATE:  30-AUG-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  FR 94/10585
;      FILING DATE:  02-SEP-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  McDonell, Leslie A.
;      REGISTRATION NUMBER:  34,872
;      REFERENCE/DOCKET NUMBER:  02356.0075
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202) 408-4132
;      TELEFAX:  (202) 408-4400
;  INFORMATION FOR SEQ ID NO:  25:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  4 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-793-701-25

  Query Match             66.7%;  Score 14;  DB 3;  Length 4;
  Best Local Similarity   66.7%;  Pred. No. 4.1e+05;
  Matches    2;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGL 3
              ||:
Db          2 FGI 4


RESULT 14
US-09-579-264-25
; Sequence 25, Application US/09579264
; Patent No. 6565855
;  GENERAL INFORMATION:
;    APPLICANT:  GICQUEL, Brigitte
;    APPLICANT:  LIM, Eng Mong
;    APPLICANT:  PORTNOI, Denis
;    APPLICANT:  BERTHET, Francois-Xavier
;    APPLICANT:  TIMM, Juliano
;    TITLE OF INVENTION:  MYCOBACTERIA FUNCTIONAL SCREENING AND/OR
;    TITLE OF INVENTION:  EXPRESSION VECTORS
;    NUMBER OF SEQUENCES:  63
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  c/o FINNEGAN, HENDERSON, FARRABOW, GARRETT &
;      ADDRESSEE:  DUNNER, L.L.P.
;      STREET:  1300 I Street, N.W.
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20005
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/579,264
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/793,701
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  FR 94/10585
;      FILING DATE:  02-SEP-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  McDonell, Leslie A.
;      REGISTRATION NUMBER:  34,872
;      REFERENCE/DOCKET NUMBER:  02356.0075
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202) 408-4132
;      TELEFAX:  (202) 408-4400
;  INFORMATION FOR SEQ ID NO:  25:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  4 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-09-579-264-25

  Query Match             66.7%;  Score 14;  DB 4;  Length 4;
  Best Local Similarity   66.7%;  Pred. No. 4.1e+05;
  Matches    2;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 FGL 3
              ||:
Db          2 FGI 4


RESULT 15
US-08-429-964-37
; Sequence 37, Application US/08429964
; Patent No. 5962243
;  GENERAL INFORMATION:
;    APPLICANT:  BROWN, MICHAEL S.
;    APPLICANT:  GOLDSTEIN, JOSEPH L.
;    APPLICANT:  REISS, YUVAL
;    APPLICANT:  JAMES, GUY L.
;    TITLE OF INVENTION:  METHODS FOR THE IDENTIFICATION OF FARNESYL
;    TITLE OF INVENTION:  TRANSFERASE INHIBITORS
;    NUMBER OF SEQUENCES:  85
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  ARNOLD, WHITE & DURKEE
;      STREET:  P.O. BOX 4433
;      CITY:  HOUSTON
```

```
;       STATE:  TEXAS
;       COUNTRY:  UNITED STATES OF AMERICA
;       ZIP:  77210
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS/ASCII
;       SOFTWARE:  PatentIn Release #1.0, Version #1.30
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/429,964
;       FILING DATE:  27-APR-1995
;       CLASSIFICATION:  435
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 08/021,625
;       FILING DATE:  16-FEB-1993
;       CLASSIFICATION:  435
;       APPLICATION NUMBER:  US 07/822,011
;       FILING DATE:  ABANDONED
;       CLASSIFICATION:  435
;       APPLICATION NUMBER:  PCT/US/91/02650
;       FILING DATE:  18-APR-1991
;       CLASSIFICATION:  435
;       APPLICATION NUMBER:  US 07/615,715
;       FILING DATE:  20-NOV-1990
;       CLASSIFICATION:  435
;       APPLICATION NUMBER:  US 07/510,706
;       FILING DATE:  18-APR-1990 (ABANDONED)
;       CLASSIFICATION:  435
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  PARKER, DAVID L.
;       REGISTRATION NUMBER:  32,165
;       REFERENCE/DOCKET NUMBER:  UTSD:432/PAR
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (512) 418-3000
;       TELEFAX:  (713) 789-2679
;       TELEX:  79-0924
;   INFORMATION FOR SEQ ID NO:  37:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  4 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
US-08-429-964-37

  Query Match             61.9%;  Score 13;  DB 2;  Length 4;
  Best Local Similarity   66.7%;  Pred. No. 4.1e+05;
  Matches    2;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 GLM 4
              |:|
Db          2 GIM 4


Search completed: March 23, 2005, 15:14:28
Job time : 42 secs
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Protein Sequence Searches - February 2005

All of the sequence databases on ABSS have recently been updated.

- Please note that the curators of the UniProt database have purged some temporary accession numbers from the most recent version of UniProt. These sequences have been assigned new permanent accession numbers. The new UniProt record may not contain the previous temporary accession number.

- If you encounter an accession number from an older search run against UniProt (results file extension **.rup**) that can no longer be found in the database, the permanent record with the new accession number can be found by searching the old accession number in the UniProt Protein Archive database (UniPARC) at:

  http://www.pir.uniprot.org/database/archive.shtml

If you have any questions regarding this information or your results, please contact any STIC searcher.

When submitting sequence search results for scanning into IFW, please include a copy of this attachment to assist any future Examiners or members of the public who may encounter UniProt temporary accession numbers.

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination
	10/305,418	BOHLMANN ET AL.
	Examiner	Art Unit
	Barbara P. Badio, Ph.D.	1617